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AMSTRAD COMPUTER USER

THE OFFICIAL AMSTRAD CPC MAGAZINE



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UNDERWATER ALIEN ACTION WITH X-OUT

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A FAB DIVER'S WATCH AND OTHER GOODIES

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THREE LEADING WP PACKAGES COMPARED, FRACTALS REVISITED AND A VISIT TO THE AUDIOGENIC FUN FACTORY.

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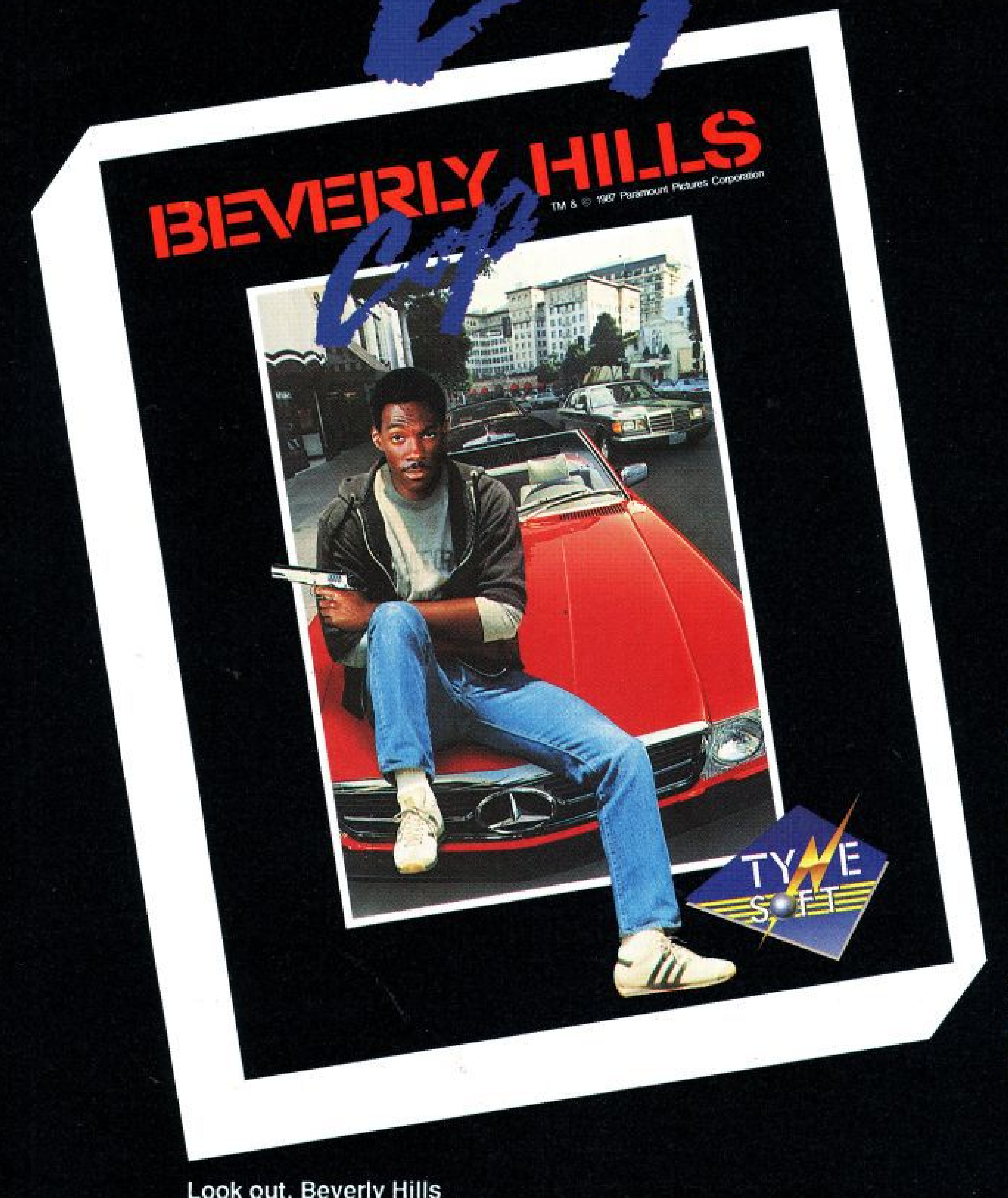
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"an absolute corker of a game ... as smooth and polished as you can get, animation is top notch ... a brilliant film conversion" Games Machine
"a fine example of how to do the job properly ... a cracking conversion ... easily one of the most successful licences to date" Sinclair User
THE UNTOUCHABLES
Kevin Costner's likeness is the copyright of Paramount Pictures.
BLOCKBUSTER FOLLOW-UP TO LAST CHRISTMAS'S No. 1 HIT... OPERATION WOLF...
NOW WITH TWICE THE ACTION, TWICE THE FUN, TWICE THE CHALLENGE
ROY ADAM IS BACK!
TAITO
The Hi-jack report came from a DC10 leaving Paris for Boston – Arab guerillas were in control of flight 102 and had turned the aircraft towards Africa ... The plane lands in hostile territory and the terrorists begin their demands ...
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or the bulletproof vest, but watch out for
AIR-TO-GROUND MISSILES
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REGULARS



FEATURES

LETTERS

Brunning on and on

I fully endorse your Microscope report on *Brunword*. Currently on my tenth word processor, I have been using the InfoScript version for over a year and it is so simple and so fast that it is a real delight. I have no desire to use anything else.

Now I have a problem. I have handed over my CPC 6128 to my children and bought myself a Vig II elite with 286 chip and 40mb hard disc. But I cannot find a PC word processor to match Brunword. I have tried to persuade Peter Brunning that a PC version would be a good idea, but he does not seem keen to enter such a crowded market. However some excellent software has migrated from the CPC – for example John Campbell's *Masterfile* and Gavin McHamish's *Money Manager*, and I am hoping that those among your readers who enjoy Brunword will encourage Peter to have a go in the PC market. After all, many of us are likely to upgrade from the CPC eventually.

Failing that it would be super if Peter would team up with John Campbell to refine the promising word processor now available in the extended version of Masterfile. It has some lovely features but has no spell-check and has not yet been honed down and refined to Brunword's elegant simplicity. Both authors seem to have a similar and appealing approach to their programs, and both packages offer the ability to import data from a database into word-processed documents at a keystroke.

D.F. Steven, Tywardreath, Par, Cornwall.

Copy query

I have a 6128 and need help. The vast majority of the games I have purchased are on tape but I would like to copy them to disc to save loading time. Please put me out of my misery and tell me what program or peripheral I can use.

J.P. Livesey, Bury, Lancs.

ACU: The device of your dreams just happens to be in Direct Lines in the February issue. The device in question is *Multiface 2* and is available for a measly £42.95.



Instruct me

My mum and dad bought me an Amstrad computer for Christmas (CPC 464) and they have lost the instructions for it, so I am wondering if you can send me some. I would be very grateful.

Michael Brett, Rochdale, Lancs.

ACU: You could try grovelling to Amstrad and they may send a new set of instructions. Amstrad can be contacted on 0277 228888. Alas we do not hold copies of such things here.

Enough triv

Your reply in the January ACU to Mr Pewty under the heading "Less Trivia" gives hope that you will finally reduce severely or remove completely the senseless cartoon drawings which occupy so much valuable space. How much more useful would be more space for readers' letters – and how about a classified ads section?

K. Browning, Ickenham, Uxbridge.

ACU: Haven't you heard that a picture paints a thousand words, besides Jules the cartoonist has an eraser and three pencils to support. But seriously, we are trying ever so subtly to shift the balance of contents to accommodate more serious issues whilst maintaining the standard of games coverage.

Brun away

An aspect of *Brunword* that isn't brought out in Phil Craven's review in the February issue is its ease of use. The screen isn't cluttered up with rulers, help menus, or status information, which on other word-processors I have found very distracting. The disc is catalogued whenever you load or save, so you're never at a loss for a file name. Page breaks are shown on the screen, so that you don't have to keep an eye on the line and page counters. Formatting is automatic. After any change, whether insertion, deletion, or even a change of margins, the text reshuffles so as to remain word-wrapped correctly between the current margins. When I first got it I did a couple of letters and then embarked on a major report that was done in bits over several weeks. It involved the use of practically every function of Brunword, including some of the more advanced ones, but although completely raw I had little difficulty. I doubt whether I could have done the same with any other word-processor.

A very valuable feature that Phil just touches on is the ability to program keys to send any 10-character sequence you wish to the printer and to display any symbol you like on the screen. Among the 21 keys that can be redefined are the numerals 0-9 preceded by CONTROL, so that it effectively adds 10 keys to the keyboard. A character definer is included, so that you can define the symbols on the screen without recourse to squared paper and manual entry of 1s and 0s.

M. Catton, Gosport, Hants.

Norway calling

First, I would like to say that your mag is great! I specially enjoyed your January issue with the Hairy Hacker's Christmas Special.

The main reason why I am writing to you is that I am looking for a good back-up program. I use to take back-up copies of my full price games, and then lend the back-up copies to my friends (not the originals). Until a couple of months ago *Locksmith+* and *Multi File Transfer* have done the job perfectly.

But when I bought *Dragon Ninja* and *Robocop* and tried to take back-up copies of them 'read fail' came on the screen. Is there a good back-up program available on the market?

I would also like to know which one of these race games is the best (most playable), second best etc.: *WEC Le Mans, Crazy Cars 2, Chase HQ, Hard Drivin', Power Drift, Continental Circus* and *Turbo Out Run*.

Stein Arne Risa, Nordaas, Norway.

ACU: You could try *Multiface 2* as offered in the February Direct Lines but I must point out that it is not legal to give backup copies to friends and as such we must discourage such practices. As for the games, we liked Chase HQ and Power Drift, quite liked Hard Drivin', WEC Le Mans and Crazy Cars 2 but were not too bothered with the rest.

Hacking down

I like and enjoy reading your magazine, but in my opinion you do not produce enough on hacking. I would like to see you not only produce hacks but show and explain the methods involved.

Nicholas J. Pye, Tighnabruaich, Argyll.

ACU: Two points immediately spring to mind. One, software companies tolerate hacking only in moderation and two, the technical side of hacking would go way over the heads of the majority of our readers.

Disappearance

Recently in the shops there has been a rumour that the CPC range has gone out of production. In a lot of the main shops they have said that either that they don't get sent any stock or that the range is out of production. Is this true? If so how long will it be before it disappears?

M. Nilski, Market Drayton, Shropshire.

ACU: The rumours about the extinction of the CPC have been going strong for some time but so has the CPC. The latest word has it that the CPC 464 may cease being sold in certain major retail outlets but its demise is vastly exaggerated.

Bustin' out

I am writing to say I have a problem, in my manual for the CPC 6128 there is a program called *Bust Out*. It took me two hours of frustration. When I finished my program I typed 'run' and it said 'improper argument in line 250'. Please please could you tell me what it means.

Tony Pearce, Penzance, Cornwall.

ACU: It only goes to show that we are not the only people to suffer from the problem. It sounds as if you have tried to do something mathematically impossible or the variables you are using are beyond those your computer can handle.

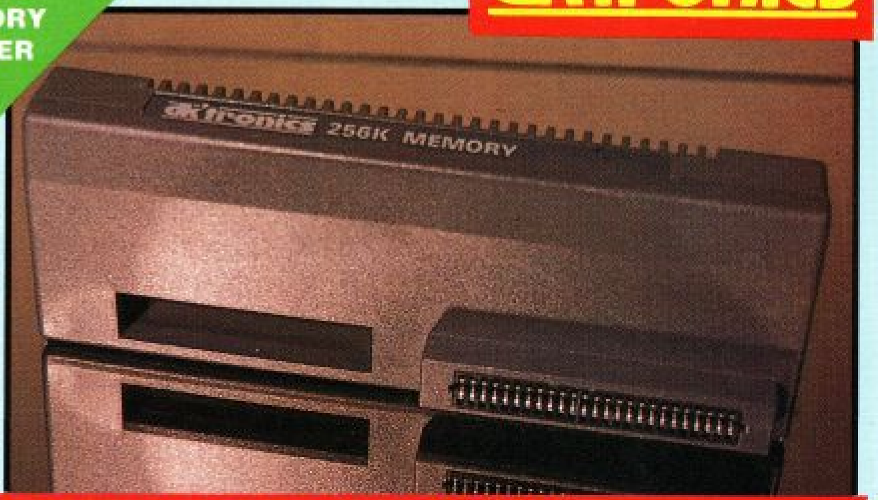
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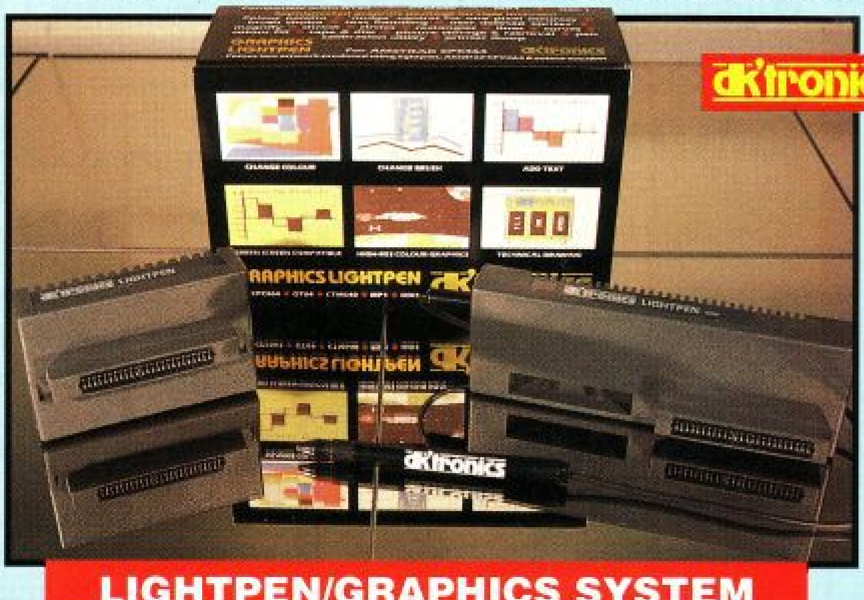


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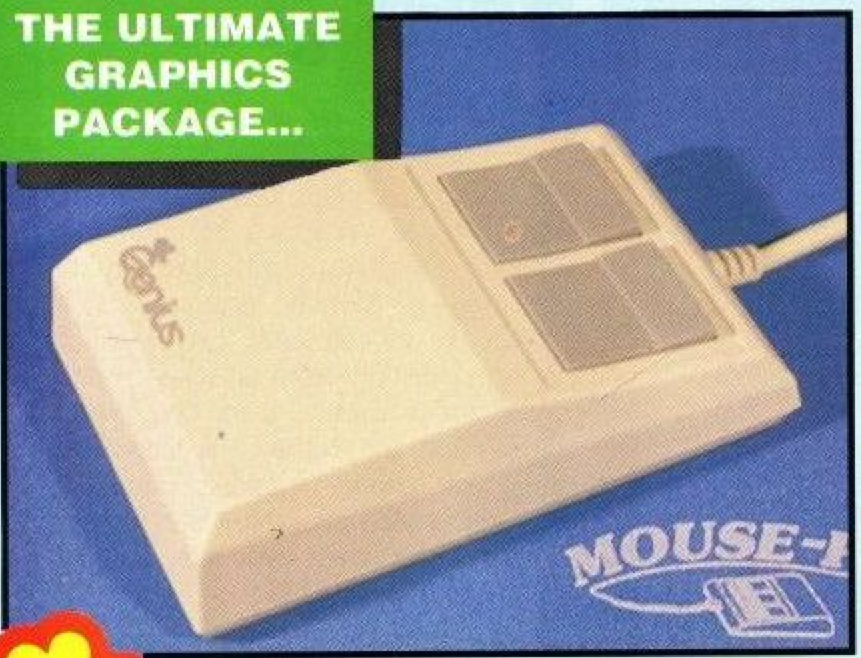
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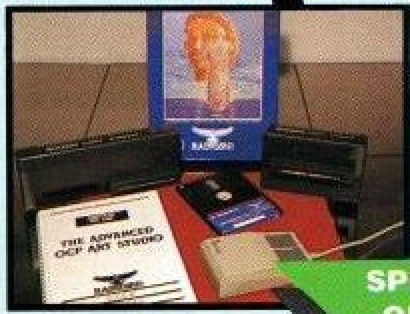
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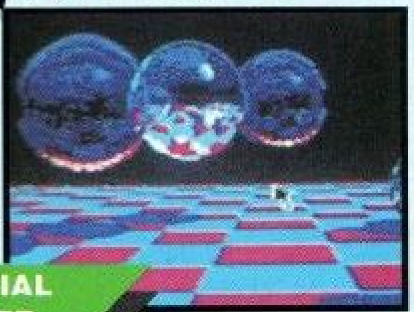
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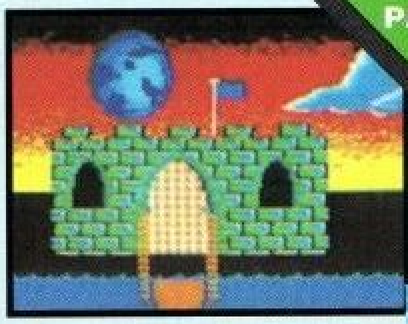
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First down

Domark's Dominic Wheatley and Mark Strachan donned grid iron gear to celebrate the launch of their latest brawn-crunching release – *Cyberball.*

The year is 2022 and all humans have been eliminated from the game of American football. Instead, twenty foot tall robots storm the field chasing a 350 pound lump of explosive material.

This fast and furious coin-op conversion looks set to take the shops by storm, and if the game spec is anything to go by, Dominic and Mark would do well to stay on the sideline and let the robots get on with it while the ball is in play.



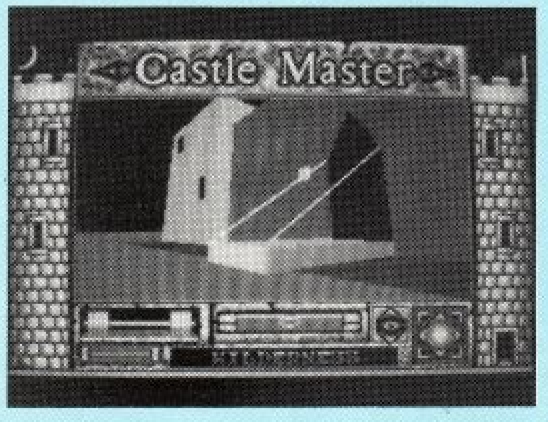
More incentive

Following news of the merger between software houses Incentive and Domark, the two firms are proudly distributing screenshots of their joint endeavour – *Castle Master*.

This 3D epic, set in the 16th century, looks set to thrill with its combination of puzzle, combat and adventure, and should be available at the beginning of this month, complete with a 24 page Castle Master booklet, for the grand total of £9.99 (cassette) and £14.99 (disc). Look out for it.







DPMS goes green

DP Media Services has gone green with its latest releases of computer supplies. High amongst the list of environment friendly products is a new range of computer listing paper made exclusively from de-inked waste paper under licence from the World Wide Fund for Nature. A complete range of ozone friendly non-CFC cleaners is also available. For further details of the latest products, contact DPMS on 0734 814171.

Midwinter in Spring?

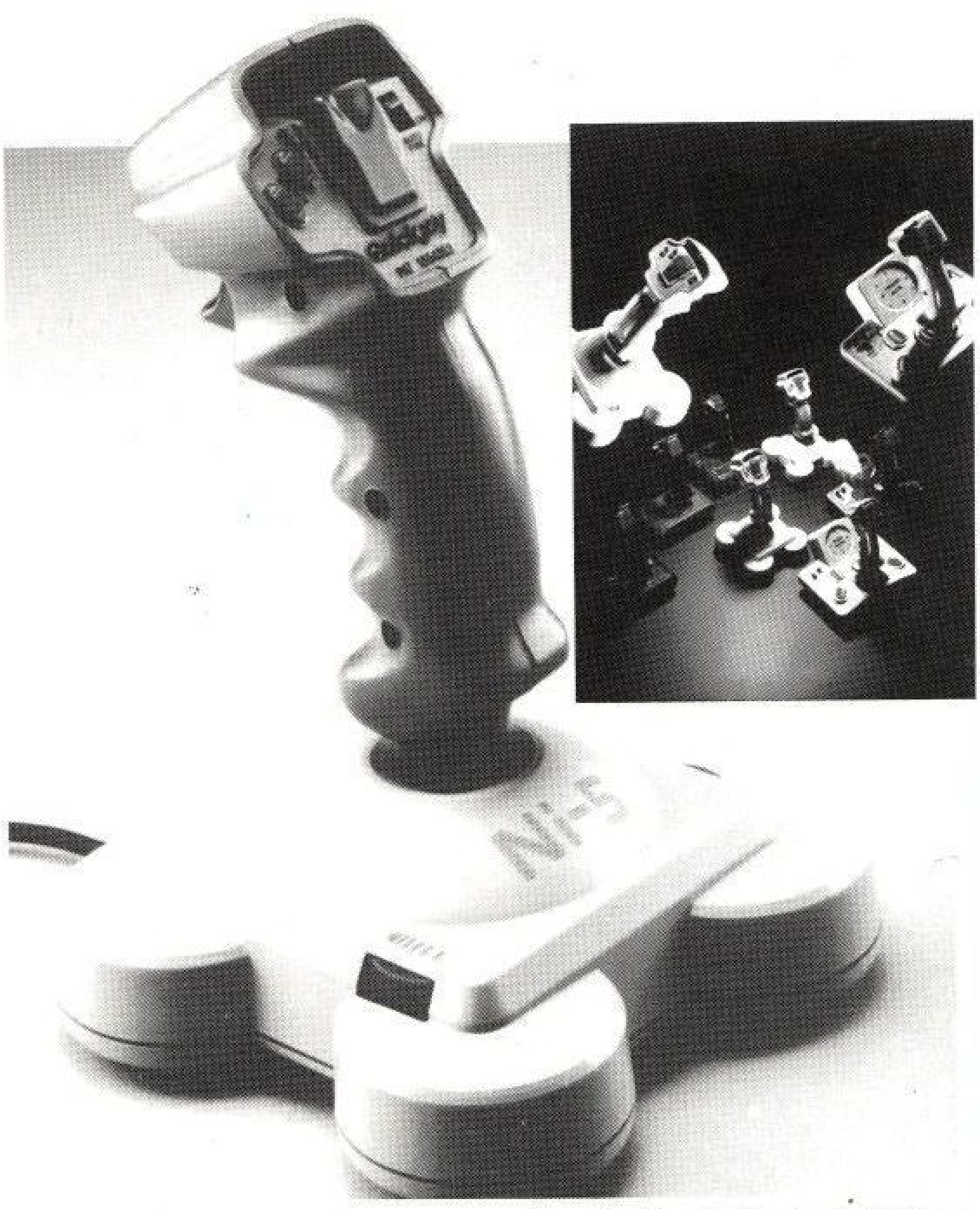
Microprose's secret *Midwinter* project seems likely to come in from the cold at last. Set during the next ice-age, the innovative new game tells the story of what happens to the Azores, of its colonisation and development into a thriving community.

Midwinter features over 160,000 square miles of playing area, mapped down to 30cm, 3D terrain and 32 independently controlled characters performing a wide variety of feats as they struggle to defend their land from mainland intruders. Sounds like a pretty chilling experience.

Yearbook for Europe

A special newcomer to this year's European Computer Trade Show will be the 132 page Yearbook, which looks destined to be the bible for the UK computer leisure sector. The Yearbook will cover 28 countries, combining details of software publishers, hardware manufacturers, distributors, importers and publications with well-informed editorial.

Copies of the Yearbook will be available at the show from April 1 to 3 at London's Business Design Centre in Islington.



Spectra sales boost

Spectravideo, former UK agent for Quickshot joysticks has taken over exclusive UK sales and marketing rights for Quickjoy.

To coincide with the deal, Quickjoy is introducing a new range of joysticks consisting of fifteen different products varying in price from under £10 to almost £40.

Delighted Spectravideo sales director Richard Sekular said of the deal: "There is vast potential for this range and it should establish Quickjoy as *the* joystick company in the UK."

Ghostbusted!

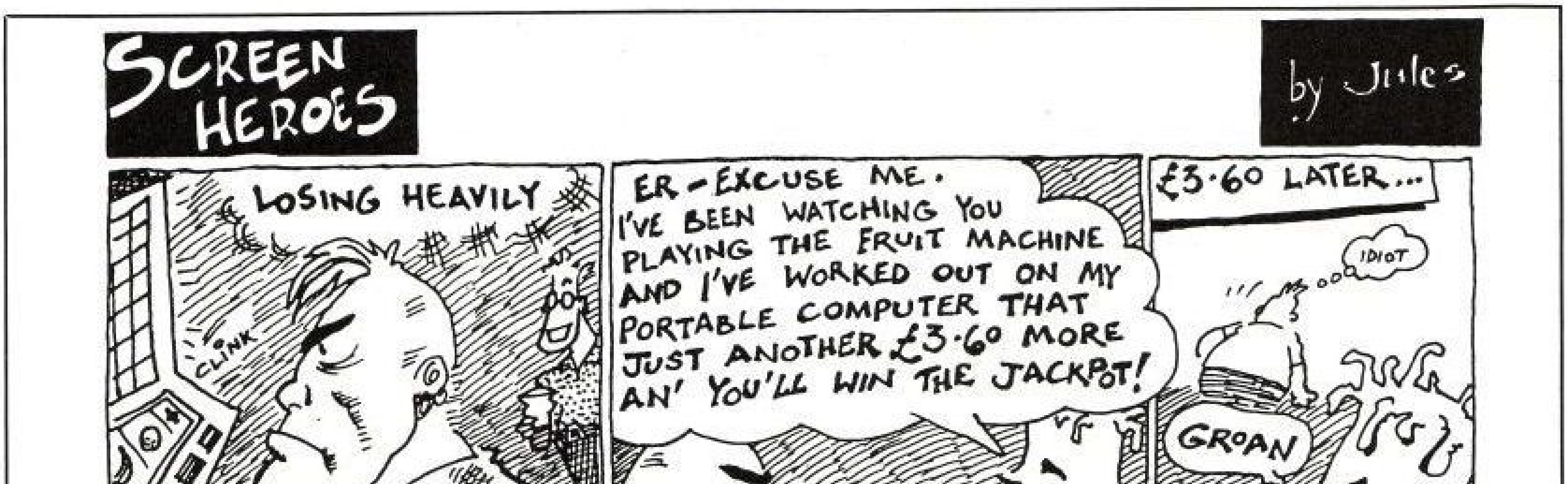
If there's something strange in your neighbourhood, who ya gonna call? How about the Hairy Hacker, he should scare off the old spooks. Alternatively, you can take to the streets protected by a super glow-in-the-dark Ghostbusters T-shirt, and we offered ten of them, along with huge posters and some fab stickers in our sensational January competition.

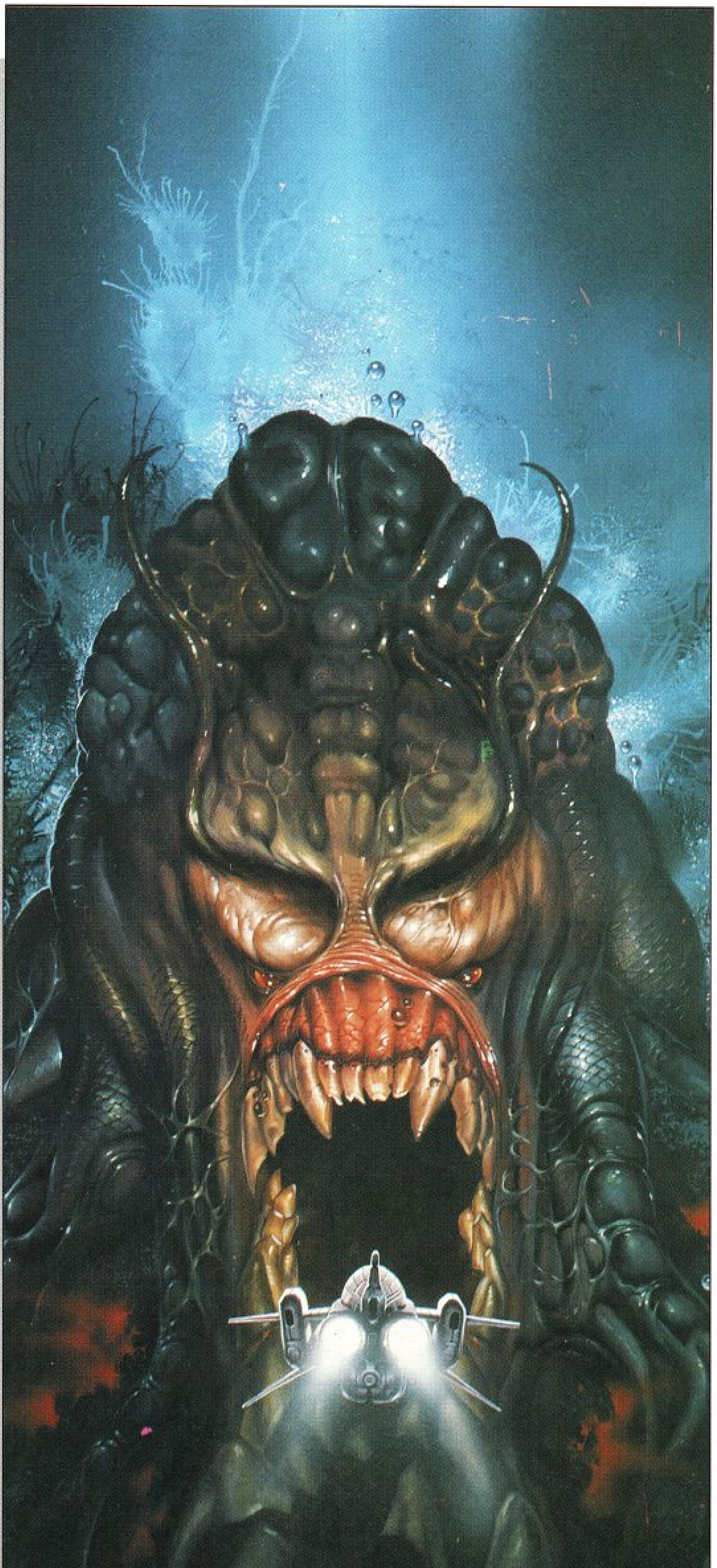
The answers to our three simple questions were:

1. Ray Parker Junior
2. Run DMC
3. New York

And now for the ten lucky winners. They are: Saul Brownstein of Chigwell, Essex; Aylwin Griffith of Peckham; Leon Tambling of Birmingham; Dennis Coughlin of Darwen, Lancs; Peter Browne of Hayes, Kent; Abbey Verral of Kettering; Toby Wright of Tadworth, Surrey; Jamie King of Barry, South Glamorgan; Paul Robinson of Kettering and David Hall of Stretford in Manchester.

Get your gear on and start busting, Spook-Troop, and for all those who missed out this time, don't worry. There's another great competition this month and every month with more than enough prizes to go round.





Time to get your thinking caps on again, folks. This month's super cover game is *X-Out*, and for those of you who want to get in on the sub-aqua action, we are giving away (in conjunction with Rainbow Arts) a fabulous diving watch. Fifteen lucky runners-up will also get copies of either *Rock 'n Roll* or *Spherical*, so please mark your choice of title and format on your entry. How do you win these great prizes? Those who would a diver be, must answer me these questions three:

1. What was the name of Captain Nemo's submarine in *20,000 Leagues under the Sea*?

2. What do the letters in the word scuba stand for (as in scuba diving)?

3. Which Mexican coastal town is famous for its cliff diving?

The editor's decision is final.
Send your entries to:
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Here we are again, back in the Combat Zone when grown men fire imaginary bullets bullets at phosphorous images and go away thinking they're Rambo. But enough of me.

This month, I thought it might be fun to take a step back from the zapping and joystick bashing we usually deal with and entertain some thoughts of a gentler and more subtle nature.

No, I'm not suggesting that we all start taking up flower arranging – but is there anyone out there who wants to have a game of pinball????

Pinball was the first true electromechanical game, you know – but although it's gone through a whole lot of changes since then it's still – in the UK – something of a minority sport.

The first ever pinballs, for example, didn't even have flippers! In those days, the machines were obvious descendants of bagatelle, where all the skill of the game is the amount of strength put into getting the ball into play. The ball would be caught in one of a number of 'cups' made out of nails – each with a different score value. As I said – no flippers. Boring!

Once flippers got put on the machines, however, they really took off in the States – until someone decided that they were a form of gambling and therefore illegal. Pinball? A form of gambling? Well that's what the law thought in the US – as you could get more out of the machine (in the form of replays) than you put in. And after all, it was a game of chance – wasn't it?

The Yanks are a bit funny about gambling of any sort, so pinball got banned for a bit in some states, until common sense prevailed. Now pinball is big, big business in the USA, with the punters putting in about 1.6 billion pounds into pinball coin-slots last year.

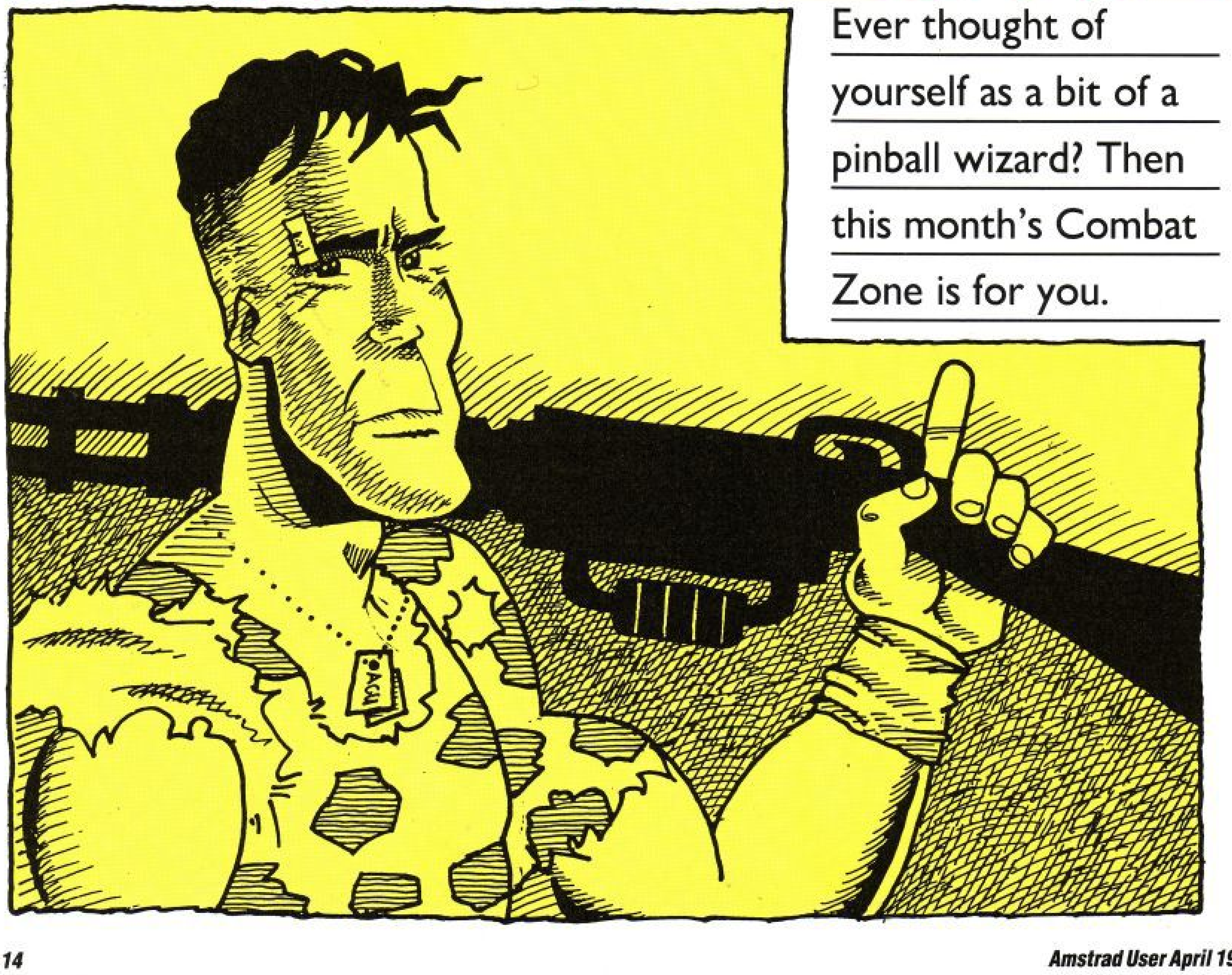
Unfortunately the same cannot be said for the UK. Here you still need a gambling licence to have a pinball in a public place and these licences are strictly governed. Booooo. That severely restricts the premises that are allowed to have pinball machines, unlike – say – France, where you can't go into a cafe without bumping into a unit.

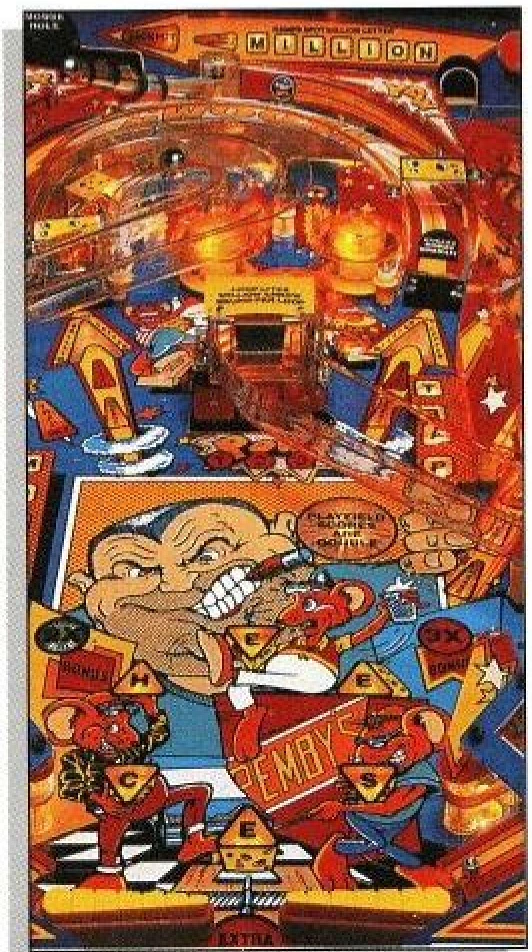
Still, although Her Majesty's Government try to make it difficult for us – there is no doubt about it that pinball is getting more and more popular. Why? Well, partly because people are getting a bit cheesed off with some of the vids coming off the production lines recently. More probable, however, is that the pinball machines themselves are getting better and better.

I don't know if you have looked at a modern pinball machine, but they are

COMBAT ZONE

Ever thought of yourself as a bit of a pinball wizard? Then this month's Combat Zone is for you.





The game from Atlantis.

getting to be very sophisticated pieces of equipment. Long gone are the clanky electro-mechanical bits and the days where a creator/technician used to *hardwire* the logic in place himself!

Now the emphasis is on fast, slick gameplay, wildly outstanding visuals and almost above all, astonishing sound – plus the odd novelty effect.

Like two years ago, a company tried having a vertical playfield as part of the table. That was a unit called *Banzai Run* – and you won't see too many of those around. Gottlieb's new table has something slightly less wacky, but entertaining nonetheless.


Mousin' around.

Called *Lights, Camera, Action!* it has the theme of, yes, making a movie! This makes it not the easiest of tables to get the hang of, but each ball starts out with a shoot-out depicted up on the head-board. You play the smooth looking dude trying to get the drop on an ugly looking villain.

The Director shouts, "Ready, Steady . . . Draw!" At this point you have to hit the flipper button. Beat the desparado to do it and you get a mystery bonus. Simple but cute.

Bally has had some neat tables recently – *Atlantis* had a good multi-ball feature and *Transporter* had a really difficult skill shot that would challenge the best of players. Its best table of recent years was, however, *Elvera and the Party Monsters*, now followed-up by *Mousin' Around*.

This is another complex table, with chutes, ramps and traps everywhere – one that should keep the most experienced of players happy. My favourite of the moment though, comes from a company who, for my money, produce the best pinball machines in the world – Williams.

I am a bit biased perhaps – now that I am the proud owner of one of its old tables, *Comet*, but all I can say is – it produces classic after classic, gawd bless 'em.

The latest is called *Bad Cats* and is a table that is easy enough to get the most inexperienced player going – but has some challenging skill features that you'll only be able to get with a whole load of practice. Try it out if you can get a chance.

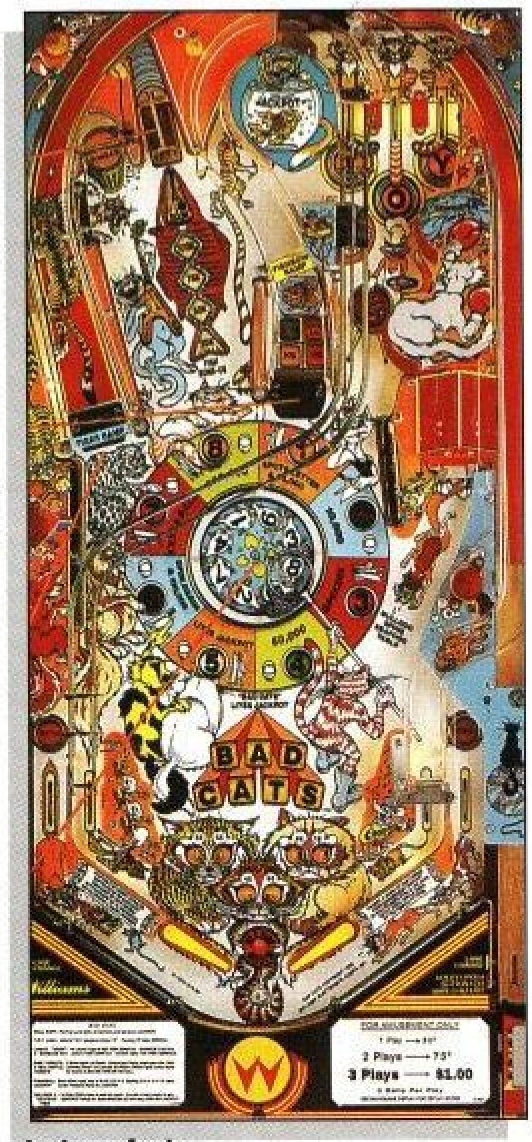
What do you have to do in order to become a Pinball Wizard, anyway? Well – the good news is that if you are good at vids, then you are also potentially good at pinball. The only thing is, a whole new set of skills are involved, which are a lot less intuitive than those you use in shoot 'em ups.

The main thing about being good at pinball is being able to trap the ball on one of the flippers so you can aim very carefully at whatever you want to hit. Try watching someone good at the game – they'll probably enjoy showing off anyway, or tell you to get lost – and see how a good player can always control the ball.

Secondly, you have to get to know the table you are playing on. What are the features that are going to get you that big score, or the big jackpot? Which shots are safe – which risk the ball going straight down the middle or down an out lane?

Thirdly – use the machine. Nudging the machine is the player's third flipper and can often save the ball when it is bobbling around an outlane or trying not to go down a lane you want it to. Nudging is legal, it's expected. Just don't overdo it or the machine will tilt and you'll lose the ball plus any accumulated bonus for that go; and b) the arcade operator will come 'round and thump you.

The main thing is to enjoy it, of course, and when you inevitably get a bum score, every now and then, reconcile yourself with the knowledge that the world pinball champion was once on TV. They gave him a big build up, millions of people were watching, he drew the plunger, let go . . . and the ball went straight down the middle – no chance!



Just purrfect.

There's always someone worse off than yourself, eh? And who said there was no connection between philosophy and computer games?

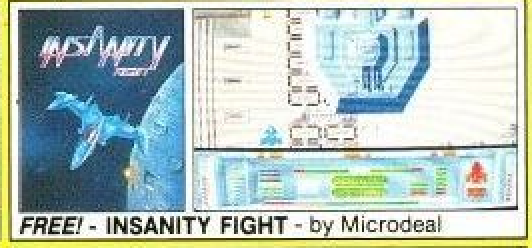
See you next month, with a low down on Sega's latest mow 'em down, *Line of Fire* and *Beastbusters* from SNK.


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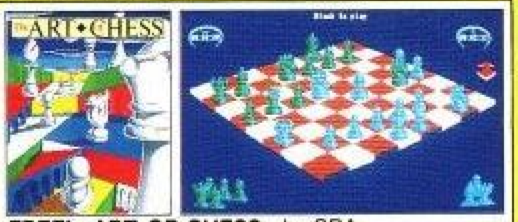
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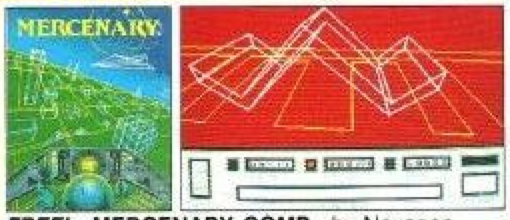
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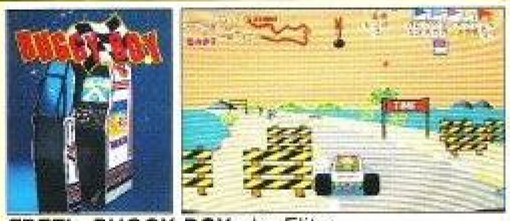
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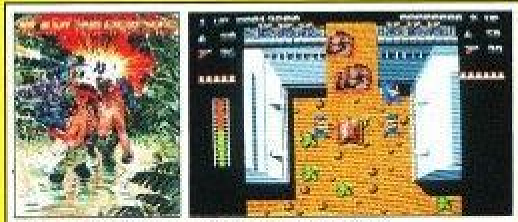
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KEYSET

BY JOHN BRADLEY

This delightful number sets the control-function keys to all the normal edit mode commands to save time, effort and frustration. It also sets control-copy to reset inks, paper, pen, border, and mode with one key press. As the last command is 'NEW', take note of the warning in line 40 and reset the memory before running, as many of the free expansion characters have been used which may interfere with other programs.

```
10 MODE 2:FOR k=141 TO 151:READ dat$,c,name$,n,r,u,s
20 KEY k,dat$+CHR$(c) : KEY DEF n,r,u,s,k
30 PRINT "Control " name$,"= " dat$;:IF c=13 THEN PRINT " " CHR$(242) CHR$(153)
ELSE PRINT CHR$(c)
40 PRINT:NEXT:PRINT "Press Control COPY":NEW 'WARNING! SAVE PROGRAM BEFORE RUNNI
NG
50 DATA mode 0,13,f0,15,0,48,48,mode 1,13,f1,13,0,49,49
60 DATA mode 2,13,f2,14,0,50,50,run,13,f3,5,0,51,51
70 DATA cls,13,f4,20,0,52,52,list,32,f5,12,0,53,53
80 DATA edit,32,f6,4,0,54,54,save,34,f7,10,0,55,55
90 DATA load,34,f8,11,0,56,56,cat,13,f9,3,0,57,57
100 DATA "border 1:ink 0,10:ink 1,1:paper 0:pen 1:mode 2",13,COPY,9,1,224,224
```

REMEMBER

BY DARREN KIERMAN

I hope your memories are up to this little progrette. Follow the on screen instructions, watch the multi-coloured words as they fly across the screen, and see if you can remember the last one you saw.

```
10 PEN 2:MODE 1:PRINT," REMEMBER":PRINT," ========":PEN 1:PRINT:PRINT"REMEMBER i
s a game where you have to    watch the words go pass, and when the   words stop
 changing you have to tell thecomputer what the last word was. There  are 10 goe
s.":PEN 2

20 PEN 2:PRINT:PRINT,"PRESS SPACE":PRINT,"===========":WHILE INKEY$<>" ":WEND

30 PRINT,"===========":WHILE INKEY$<>" ":WEND:BORDER 0:INK 0,0:INK 1,26:DIM a$(2
0):FOR n=1 TO 20:READ a$(n):NEXT:DATA SOLID,PETER,AROUND,QUESTION,THACTER,NATION


40 DATA NUCLEAR,TIME,SUPER,FOREST,TRAINER,PROFILE,EUROPE,PASSPORT,FRONTLINE,DEFE
NCE,WEATHER,MONSTERS,BALANCE,POWERHOUSE

50 INK 5,7:MODE 0:FOR n=1 TO 10:PEN 5:CLS:LOCATE 6,9:PRINT"REMEMBER.":LOCATE 6,1
7:PRINT"REMEMBER.":FOR p=1 TO 25:kk=INT(RND*19)+1:

60 PEN kk/2:LOCATE 1,13:PRINT STRING$(20," "):LOCATE 10-(LEN(a$(kk))/2),13:PRINT
 a$(kk):PEN 1:NEXT:FOR pp=1 TO 5:NEXT:CLS

70 PEN 3:LOCATE 1,2:PRINT"LAST WORD WAS ";:PEN 1:LINE INPUT word$:LOCATE 2,4:IF
UPPER$(word$)=a$(kk) THEN PRINT"RIGHT":ooo=ooo+1:SOUND 1,100,20,15:SOUND 2,200,2
0,15:WHILE SQ(1)>127 OR SQ(2)>127:WEND

80 IF UPPER$(word$)<>a$(kk) THEN LOCATE 2,4:PRINT"WRONG":SOUND 1,1000,20,15:SOUN
D 2,1200,20,15:WHILE SQ(1)>127 OR SQ(2)>127:WEND

90 NEXT:PEN 3:CLS:PRINT"YOU HAVE SCORED ";:PEN 1:PRINT USING"£££%";(ooo/10)*100:
PRINT

100 PRINT"     ANOTHER GO?":INPUT reply$:IF UPPER$(LEFT$(reply$,1))="Y" THEN CLEA
R:RESTORE:RUN ELSE CLS:PRINT"Goodbye....."
```

SPACE RACE

BY DUNCAN MACFARLANE

Guide your starship through the myriad satellites and meteors to the safety of the mother ship.

A neat little graphics demo, and it is definitely not as easy as it looks. The gaps between the obstacles seem to close in on you when you are not looking. This one is definitely for those with a quick hand and a strong nerve.

It drove us fairly potty for a few hours.

```
10 REM ****** SPACE RACE By DUNCAN MACFARLANE ******

20 MODE 1:INK 0,0:INK 1,26:INK 2,8:INK 3,6:BORDER 0:PAPER 2:PEN 3:LOCATE 4,2:PRI
NT" S P A C E   R A C E  ":LOCATE 11,25:PRINT" 1989 D.Macfarlane ":PAP
ER 0:PEN 1:LOCATE 16,17:PRINT"GOOD LUCK":PRINT CHR

$(22)+CHR$(1):LOCATE 16,17:PRINT"__________"

30 PRINT CHR$(22)+CHR$(1):LOCATE 4,14:PRINT"Keys:- z x,Joystick,Cursor Keys.":LO
CATE 1,10:PRINT"Guide your space craft to dock with the mother ship.":PEN 3:LOCA
TE 15,20:PRINT"PRESS SPACE":WHILE INKEY$<>" ":WEND

:g=2:MODE 1:PEN 1:x=20:xx=320:p=0

40 LOCATE 1,1:PRINT CHR$(11):LOCATE RND*37+2,1:PRINT CHR$(231):LOCATE RND*37+2,1
:PRINT CHR$(42):MOVE 0,385:DRAW 0,399,g:MOVE 639,385:DRAW 639,399,g:g=g+1:IF g>3
 THEN g=2

50 IF INKEY(8)>-1 AND x>2 OR INKEY(71)>-1 AND x>2 OR INKEY(74)>-1 AND x>2 THEN x
=x-1:xx=xx-16 ELSE IF INKEY(1)>-1 AND x<39 OR INKEY(63)>-1 AND x<39 OR INKEY(75)
>-1 AND x<39 THEN x=x+1:xx=xx+16

60 PEN 2:LOCATE x,25:PRINT CHR$(239):PEN 1:IF TEST(xx-9,40)=1 THEN 70 ELSE IF p=
500 THEN 80 ELSE IF TEST(xx-9,40)=3 THEN 90 ELSE IF p>550 THEN 100 ELSE p=p+1:GO
TO 40

70 FOR s=800 TO 2000 STEP 100:SOUND 1,s,5,15:NEXT:LOCATE 15,1:PEN 3:PRINT"PRESS
SPACE":LOCATE 12,15:PEN 2:PRINT" G A M E  O V E R ":WHILE INKEY$<>" ":WEND:GOTO
20

80 p=p+1:LOCATE RND*25+8,1:PAPER 3:PRINT" DOCK ":PAPER 0:GOTO 40

90 FOR s=1800 TO 200 STEP-100:SOUND 1,s,5,15:NEXT:PEN 2:LOCATE 15,1:PRINT"PRESS
SPACE":LOCATE 8,15:PEN 3:PRINT" Y O U  M A D E  I T ! !":WHILE INKEY$<>" ":WEND:
GOTO 20

100 FOR s=800 TO 2000 STEP 100:SOUND 1,s,5,15:NEXT:LOCATE 15,1:PEN 2:PRINT"PRESS
 SPACE":PEN 3:LOCATE 12,15:PRINT"YOU FAILED TO DOCK!":WHILE INKEY$<>" ":WEND:GOT
O 20
```

PAC-ED IN TEN REVISITED

BY STEPHEN FERNIE

Here is a little extra sent in by Stephen Fernie of Inverness that will help all those who were spaced out by Pac-ed in ten (December ACU) from A.G. Hall. Just replace "if L=0 THEN" with "IF 1=0 THEN" in line 80 and you will be immune from the ghosts. Where will all this rampant cheating get us? Much higher scores, with any luck.

TOWER OF BRAHMA

BY CHRIS WOOTTON

This is a neat 10-liner conversion of the well-known puzzle game which involves moving a stack of rings from one needle to another without placing a larger ring on top of a smaller one. Try one of the higher levels and see how tough it gets. It kept Chris Knight busy for a morning, so it can't be all bad.

```
10 MODE 2:INPUT"Enter difficulty level (1-6) ";r:r=r+2:DIM n(3,r+3):CLS [EC]
20 n(1,0)=r:FOR a=1 TO r:n(1,a)=r+1-a:NEXT [BC]
30 FOR a=1 TO 3:FOR b=1 TO r+3:LOCATE a*20-n(a,b),13-b:e$=CHR$(7) [73]
40 PRINT STRING$(n(a,b)*2+1,143):NEXT b:LOCATE a*20-1,14:PRINT STR$(a):NEXT [3C]
50 FOR a=2 TO 3:FOR b=1 TO r:x=1+(n(a,b)<>(r+1-b)):NEXT [6B]
60 IF x THEN LOCATE 25,17:PRINT"Well Done. It took you"n"moves.":END ELSE NEXT [
2C]
70 LOCATE 3,16:INPUT"Move From ";f:LOCATE 5,18:INPUT"Move To ";t:x=n(f,0) [24]
80 y=n(t,0):IF x=0 OR (y>0 AND n(t,y)<n(f,x)) OR t=f THEN PRINT e$:GOTO 70 [27]
90 n(t,n(t,0)+1)=n(f,n(f,0)):n(f,n(f,0))=0:n(f,0)=n(f,0)-1:n(t,0)=n(t,0)+1 [69]
100 CLS:n=n+1:GOTO 30 [3B]
```

ANTHEM

BY MARK CRAWFORD

What will you lot think of next? Still, this should come in handy for all you late night programmers. When you decide to shut down for the evening, just dim the lights, snuggle down with your cocoa, lie back and think of England with these dulcet tones.

```
5 ON BREAK CONT
10 GOSUB 90
20 READ a,ad,b,bd,c,cd:IF a=-1 THEN FOR f=0 TO 3000:NEXT:LOCATE 4,10:PRINT STRIN
G$(30,CHR$(247)):END ELSE SOUND 1,a,ad:SOUND 2,b,bd:SOUND 4,c,cd:GOTO 20
30 DATA 159,100,253,100,319,100,159,100,190,100,379,100,142,100,239,100,478,100,
169,150,284,150,426,150,159,50,284,50,379,50,142,100,284,100,338,100,127,100,213
,100,319,100,127,100,190,100,379,100,119,100,190,100,478,100
40 DATA 127,150,213,150,426,150,142,50,239,50,478,50,159,100,253,100,379,100,142
,100,239,100,478,100,159,100,253,100,426,100,169,100,284,100,426,100,159,100,253
,100,638,100,159,50,253,50,426,50,142,50,213,50,478,50,127,50,213,50,5
06,50
50 DATA 119,50,213,50,568,50,106,100,213,100,638,100,0,1,0,1,0,1,106,100,213,100
,506,100,0,1,0,1,0,1,106,100,213,100,426,100,0,1,0,1,0,1,106,150,213,150,319,150
,119,50,213,50,426,50,127,100,213,100,319,100
60 DATA 119,100,213,100,426,100,0,1,0,1,0,1,119,100,213,100,338,100,0,1,0,1,0,1,
119,100,213,100,284,100,0,1,0,1,0,1,119,150,213,150,426,150,127,50,213,50,319,50
,142,100,213,100,426,100
70 DATA 127,100,213,100,319,100,119,50,213,50,284,50,127,50,213,50,319,50,142,50
,213,50,338,50,159,50,213,50,379,50,127,50,213,50,426,50,127,50,213,50,478,50,12
7,50,213,50,506,50,119,50,213,50,568,50,106,100,213,100,638,100
80 DATA 95,50,190,50,478,50,119,50,190,50,478,50,127,100,213,100,426,100,142,50,
213,50,426,50,142,50,213,50,478,50,159,250,253,250,638,250,-1,0,0,0,0,0
90 SYMBOL AFTER 32:SYMBOL 247,112,112,64,112,64,120,8,8:MODE 1:PRINT"           GO
D SAVE THE QUEEN":LOCATE 9,2:PRINT STRING$(20,CHR$(208)):LOCATE 4,10:PRINT STRIN
G$(30,CHR$(247)):FOR f=0 TO 900:NEXT:LOCATE 4,10:PRINT STRING$(30,CHR$
(248))
100 LOCATE 18,4:PRINT " Converted by Markie":RETURN
```

Making an impact

Audiogenic is one of the old troopers of the games software market. Chris Knight visited the company to hear a tale of hard earned success.

When Audiogenic first introduced *Impact* on 8-bit format back in Easter 1988, it was not the market success that the north London-based company had hoped for and, despite rave reviews from various corners, took quite some time to get off the starting blocks and into the ratings.

Maybe there were too many Arkanoid-type games around at the time, maybe the timing was wrong. Who knows? But like all of those games with that extra special something, once Impact finally arrived on the market it stayed and, curiously enough, its arrival coincided with a subtle change in Audiogenic's marketing strategy, which despite hard work and many a heartbreaking decision has reaped great rewards with the likes of the award winning blockbuster *Emlyn Hughes Soccer*.

But these dizzy heights seemed a lifetime away in 1985, when the company was left high and dry after the market slump of 1984 and the bankruptcy of American software house UMI.

In the early days, Audiogenic existed as a cassette and hi-fi company, hence its name, and got involved in duplicating software for Commodore through its parent company, Supersoft. Late in 1979, the company took on distribution and marketing and began its career in licensing products.

With the acquisition of the UK marketing rights for UMI products, Audiogenic suddenly became the proud owner of a 20 strong library of titles including such classis as *Spiders from Mars* and *Amok*, one of the biggest selling games in the States, concentrating on the Vic 20 and Commodore 64 series machines. But this reliance on overseas product licences had its pitfalls, and resulted in the company's virtual breakdown in 1985.

The turning point in Audiogenic's fortunes came with the arrival of Peter Calver and his partnership buy-out of the company, and the release soon afterwards of the Graham Gooch Cricket simulator put its proverbial foot firmly in the door.

As Peter himself puts it: "The cricket simulator is still selling remarkably well, probably at a rate of about 30 to 50 copies a month, which isn't bad for a four year old game."

According to Peter, the next two years were "dull" as the company moved into the BBC Electron market, but with the release of Impact and Peter's buy-out of his partner in 1988, Audiogenic started off on its new path to success.

"There was a conscious change of direction" claims Peter, now MD of the company, "which saw us concentrating on a smaller number of quality games rather than sheer volume. It was quite a hard route to choose and there were various heartbreaking decisions, but quality games give volume of sales and also build up a better reputation."

Since this change of direction, Audiogenic has started work on twelve different projects, two of which have since been dropped because they simply weren't "getting there".

"It is hard to finance twelve projects at one time," remarked Peter "especially when most include five or six formats. But we are not great game players and we only pick something up if it is really special and decisions always have to be made as to what people are going to prefer."

The soaraway success of the Emlyn Hughes soccer game would seem to indicate that Audiogenic has discovered exactly what people prefer. The next step, of course, is finding ways to follow up on this success, and Audiogenic's long term strategy concentrates on just that.

With the setting up of a new label, Sports Action, the company will concentrate some of its resources into producing high quality sports simulations.

Peter Calver said of the decision: "Apart from a couple of small companies, there is no serious specialisation in sport. People like simulations, and many people who can't get actively involved in sport tend to buy different simulations to be a part of their favourite games."

The company's other daughter label, as yet unnamed, will continue to concentrate on games with an original element.

"Gameplay is going to be all important on this label," claims Peter. "If people see a good game, they will stick to it. We are looking at games that are addictive, but simple and fun to play, those which will keep people coming back to them again and again."



Class act: Peter Calver and Beverley Gardner.

Also high on Audiogenic's agenda is a move into the field of educational software, with an emphasis on self-improvement and adult education. But, as Peter stresses, it is not going to involve education as some perceive it now.

"I would like to see more and more people using computers for different things," he remarked. "Far more people in the future are going to turn towards leisure activities, and education involving computers is going to be very much a part of that."

So, the long term seems to be well and truly sewn up for the time being. But what of the immediate future? Well, if you liked Emlyn Hughes soccer, you're going to love Audiogenic's *Super League Manager*.

Based on a program by Anglo-Soft, SLM is designed to act as a link with Emlyn Hughes Soccer, as well as being a game in its own right, and by the look of the progress already made on the project by development manager Gary Scheinwald, the game should be an absolute gem and a must for management lovers.

Also in the pipeline is a stylish shoot-em-up called *Wreckers*, which looks like the latest word in alien annihilation programs as you battle to save your spaceship from the invading Plasmodians.

1990 is going to be a busy time for PR Beverley Gardner as the company gets set for this strong line-up of releases, and with the long awaited *Emlyn Hughes Arcade Quiz* just around the corner to start the ball rolling.

BrunWord

Complete Word Processing Package £30

BrunWord 6128 is a complete word processing package consisting of three programmes, a word processor, a spelling checker and a card filing programme. It is written to run on a standard unexpanded CPC6128 (or CPC464 + disc + 64K) and is optimised for use with a single disc drive. The latest version was released in October 1988 and out performs any other word processor for the CPC6128.

The programme has three screen modes 40, 80 and 128 columns that are automatically selected according to the right margin setting. We take the view that it is not possible to read a paragraph if it goes off the screen sideways, so BrunWord 6128 has a unique 128 column mode for the wider text. The mode can be changed any time simply by using <CTRL> R to set the right margin. The cursor will remain on the same word after the change. Children often prefer to type in using the easy to read 40 column mode and then to print out using the 80 column mode.

Manipulating the text can be great fun as it is possible to move the temporary margins while watching the effect as it happens on the screen. This also has the important use of allowing a block of text to be easily adjusted to its best shape.

Most word processors have a simple justification system that either makes the middle bulge or the text lopsided. BrunWord has a superb system where spaces are added after punctuation and then between words alternating left and right towards the centre of the line. This gives the text a pleasing balanced appearance.

Marked text is shown clearly in inverted video and can be moved, copied, deleted or saved as a memory file. Memory Files are another powerful feature of BrunWord. Often when making severe changes to a piece of text, it is necessary to save sections for possible use later or for adding to another file. Normally this would involve saving these to the disc with the difficulty of using a name which makes the content obvious. This results in the disc becoming congested with small files that later need to be examined and possibly deleted. BrunWord allows a number of small files to be stored in memory and these can be saved to the disc along with the main file (under the same name) or left in the memory for adding to another file.

Printing

This paragraph shows the various printer facilities that do not affect the general format of a paragraph. For example underline is simple and so is *italics*. $y=ax^2+bx^3$ or $Note_6$ present no difficulty. **Emphasised**, double strike and NLQ can also be used without upsetting the justification.

Enlarged mode is *possible* but a little planning is needed and the same applies to condensed printing.

Spelling Checker

The integrated spelling checker of BrunWord 6128 and its 30,000 word dictionary load at the same time as the main programme. We invented a special system to compact the dictionary so much that each word is represented by just one and a half characters. Each group of words had to be given the correct group ending and typed in by hand, taking one 'man' six months to complete. With such a compact dictionary, we are able to store this in the 64K of banked memory, making access very convenient and exceptionally fast.

The Reference

There are times that a spelling error creates a valid word and we have given an unusual amount of effort to this problem. For example our dictionary contains 'need' but not 'nead' as it is far more likely that you have made an error than you are writing about making bread.

We have tried to leave out uncommon words that are likely to confuse and have included only the most up to date English spellings. The Oxford dictionary was our main reference but at times we had to take a consensus from several good quality magazines and newspapers.

It is very important only to add words to the dictionary that really are needed and here BrunSpell scores a triumph. As the dictionary is memory resident, it is possible to save peculiar words and abbreviations to the memory, to form a temporary working dictionary which is NOT saved to the disc. Each day you are reminded that these words are not up to your reference level but they only need to be saved once each working secession.

If a strange word is regularly used then this can be saved permanently to the disc. The supplied dictionary occupies 49K of the available 64K and it would be possible to add another 15,000 words if these fitted in perfectly. In reality you are likely to be limited to about 35,000 words in total.

Help and Transfer

Suppose that necessary is misspelt as 'necesery'. The spelling checker will stop with NECESERY displayed at the bottom left of the screen in large letters. Press H for Help and in less than a second a list of three words will appear on the screen:-

NECESSITY
NECESSARILY
NECESSARY

The spelling error can now be automatically corrected using one of the three words by stepping through the list to the right word and then pressing T for Transfer. The word will be corrected in a fraction of a second, keeping the first letter the same case as the original word.

The help routine has two levels of search. The first is quite rigorous while the second search takes a broader spectrum of possibilities and would normally be able to correct a severe error that is only vaguely similar to the word.

For example NACSERIY produces no words on the first search but takes just six seconds to list 11 words in the second search:-

NAUSEATING	NECESSITY
NECESSITATE	NECESSARILY
NECESSITATES	NECESSARY
NECESSITATED	NESCIENT
NECESSITATING	NESCIENCE
NECESSITIES	

The first search restricts the length of the suggested words. The second search will offer any words where the first part has a similar pattern to the incorrect word and this can be used to list all the words with a particular stem.

Comparisons

Our closest rival claimed that their spelling checker achieves 'up to 2000 words per minute'. Our tests, published at the October 88 Amstrad show, revealed that its average speed for a file of 3366 words was only 526 words per minute and much more to our surprise, that it required eight changes of the disc to complete the spelling test. Our spelling checker, BrunSpell, achieved 3883 words per minute for exactly the same test and needed no disc in the drive. Remember that all other word processors need to load the dictionary from disc during the spelling test, even the so called ROM versions.

Scrolling the screen one line at a time, is also a vital performance test, as the CPC6128 tends to be naturally slow at this. Again, our closest rival is widely regarded as very fast, but BrunWord is 40% faster. . . . . .

The First Step

BrunWord has a 40 page manual which has several detailed examples, starting with step by step instructions to produce and print a simple letter. But your very first step is to load the TUTOR file into BrunWord. This takes even the complete novice straight into word processing and demonstrates the powerful editing and formatting features of BrunWord. There are also examples of printer control, showing how to create headings, to underline or to emphasise, and five deliberate spelling errors for you to correct. The tutor takes about 20 minutes to run through and after that you will feel confident to type in your own text.

Our Booklet 'BrunWord & Printer' has 5 pages devoted to the BrunWord 6128 package.

BrunWord Features

*40, 80 or 128 column display. *Touch typing speed over 200 words/min. *True insert or overwrite. *Justify or unjustify paragraph or whole text. *Justified text has balanced appearance. *Instant word wrap. *Block save, move, copy, insert and delete. *Local editing with word delete/undelete. *Adjustable margins and TABs. *Column/Line/Page display with file name. *True word count. *Find and replace. *Help menus. *Memory filing system. *Single character embedded printer commands (18 with 3 printer codes and 21 with 10 printer codes). *Page throw markers. *Multiple copies. *Odd/even page headers/footers with page numbers. *Multi file printing (new page or continuous). *Print specified pages. *Works with any printer. *True display superscript and subscript numbers. *User defined print characters. *Load ASCII files from other word processors. *Save ASCII files for other word processors. *Files can be encrypted. *Maximum file size about 9 pages of text.

BrunSpell Features

*Memory resident with word processor. *Checks 4,000 words/min. *30,000 word dictionary. *No American spellings. *Add up to 5,000 of your own words. *Instant lookup. *Helps to find correct spelling. *Automatic correction.

DataFile Features

*Alphabetical, numerical, date sorting on any field. *User defined headings. *Search routine. *Data merging into BrunWord. *Label printing.

Send cheque/PO/Access number/Visa number to:



Brunning Software
34 Helston Road,
Chelmsford, Essex, CM1 5JF
Telephone (0245) 252854 (24 Hours)

BrunWord 6128 with BrunSpell & DataFile. . . £30.00
BrunWord 464 with BrunSpell & DataFile. . . £30.00
BrunWord Elite 6128, Info-Script & BrunSpell. . £90.00
Info-Script 6128 with BrunWord & BrunSpell. . £50.00
100 Letters (needs Info-Script). £15.00
BrunWord Elite and Info-Script include backup disc.
(All supplied on 3in Disc - state which computer)

All prices are inclusive for UK. Overseas orders sent insured air mail - Europe add £2.50 : Rest add £7.50

BrunWord Elite £90

Vic Barnes, of Shepherds Bush, London, is a photographic journalist. He earns his living from the typewriter, or to be strictly accurate, from his CPC6128 + Star LC24-10. His work can be seen in various magazines including a recent article, with his own stunning photographs, about touring Scotland on his BMW motorcycle. He also regularly writes two Newsletters.

Prior to December 1989 he was a dedicated Protext ROM user and had said that he could not imagine ever wanting to change his word processor. Quite typically, it was soon after saying that that he noticed our BrunWord Elite advertisement. He gave us a long and detailed grilling over the telephone and promptly sent us an order. His order has the distinction of being the very first BrunWord Elite order in our order book. It was dispatched to him on 21st November 1989.

On December 10th he wrote:- "I've spent quite a few hours thrashing your quite brilliant programme, which so far has proved completely bug free. I have enclosed copies of the first two Newsletters created with it... I am now eager to produce more complex layouts. BrunSpell is amazing, no - turbo-charged! The 'look-up' feature has proved to be instantaneous. Info-Script seems very comprehensive but I still have a lot to learn... ".

We have had several telephones calls from him since, and happily he is still just as impressed. On Friday 5th January, he rang with a query about footers and without being prompted said "I haven't used Protext since I received BrunWord Elite". What more can we say?

(We asked permission to use his name & address).

Free Booklet

We have written a sixteen page booklet which explains all about our programmes, starting with BrunWord 6128 and going on to Info-Script and BrunWord Elite. It is free to all CPC owners. Simply write your name and address in block capitals on a sheet of paper and send in a envelope to 'BrunWord & Printer', Brunning Software, at the address below.

Letters

Regretfully I have recently upgraded my computer system to a 'PC' and I have sold my Amstrad CPC664. I therefore can no longer use your excellent software. I found BrunWord a powerful and easy to use programme from which many of the ungainly 'PC' word processors could learn a great deal. Many thanks for your hard work and good luck with your future products.
Mr M (Camberley).

Find enclosed my second disc for updating to BrunWord Elite. The reason for writing is to say how much I appreciate your product. I have used Info-Script and BrunWord for years now and find it so easy to use. I don't think you have noticed that there are a couple of spelling mistakes in your Fonts & Examples disc... try BrunSpell its an excellent spelling checker. (Thanks we take the point!). Thank you for keeping me up to date with your products they really are excellent, keep up the good work.
Mr W (Tipton).

Your BrunWord is certainly very good. My wife suggested that I might need a better computer than my Amstrad CPC6128. My reply is that this would mean accepting an inferior word processor.
Rev H (Wigan).

Info-Script

Complete Data Processing Package £50

The full power of any database is only realised when the data can be put to use. A typical database is centred around saving, sorting, finding and displaying the data. These functions are obviously important but only if there is a purpose to storing the data.

We gave considerable thought to this and decided that the usual shortcoming of a database lies in the difficulty of presenting the data. Most programmes overcome this by including a text processing system that is really a simple word processor. We find the idea of using an inadequate word processor as totally unacceptable. Months had already been spent optimising the BrunWord routines into their smallest most efficient form, so we decided that the whole of the word processor should be built into our database.

Info-Script uses many of the internal routines of BrunWord, making a very compact combination and allowing both programmes, 6 pages of text and 1000 names and addresses to be in the memory at the same time, using an unexpanded CPC6128 (or CPC464 + disc + 64K). The great advantage of this is the speed and convenience of being able to access both programmes and their related data without any disc delays. Add to this the progressive search routines, the unique four marker system and the arithmetical functions and you will begin to understand the excitement of our customers.

Info-Script has all the features of the BrunWord 6128 package and includes a second disc as a backup copy. Type RUN "BRUNWORD" to load the word processor, spelling checker and 30,000 word dictionary or RUN "INFO" to load the database and the word processor.

Database Features

*Very fast (e.g. takes 1 second to search 2000 addresses for surname 'Smith', initial 'B'). *Specific field search and/or progressive general search. *Instant sort on any field, alphabetical, numerical, date or reverse order (takes no time as the data does not move). *3 sets of user defined headings for each file. *4 markers for instant selection, plus one temporary marker. *Markers can be cleared or inverted and any pair can be added (allows complex searches to be quickly and easily performed). *No setting up of field type or length. *Efficient storage. *Relational records, Parents, Sons and Daughters. *Simple field to field arithmetic with running total. *Direct data merging into BrunWord. *Easy direct label printing, 1 across, 2 across, left of 2 or right of 2. *Single or multi-step.

Data Merging Features

*Simple intelligent system. &N &A &D construct full name, full address and date. *&1 &2 etc specify individual fields. *Insert or fixed format merging. *Automatic justify after merging. *Single step (see before printing) or multi-step. *Stop any time, go to word processor, restart same place. *Merge data from several records for summary, invoice, purchase order etc. *Simple arithmetic. *Running total. *Running VAT total. *Conditional loading. *Conditional printing. *Repeat patterns.

Upgrade £32.50

Send your BrunWord instruction manual (and one of your BrunWord discs if you have purchased a backup copy) and a cheque for £32.50. We will send you the Info-Script manual and one new Info-Script disc. Then send your BrunWord disc for us to update as your backup copy (cost included).

100 Letters £15

100 Letters is a utility for use with Info-Script, enabling pre-written letters to be easily selected and personalised. To write a letter, simply edit the letter number into the ACTION field of the correct address record then press T for Transfer. The required letter will be loaded into BrunWord and personalised with the name and address that you have chosen and any other specified data. The letter is then in the BrunWord editor ready for you to modify in any way you choose. All the normal editing features of BrunWord can be used and when it is exactly what you want, it can be printed out in the normal way.

Library

We have written a library of over 50 letters to give you a starting point for some of those tricky letters that are so difficult to write when you are under pressure to do it quickly.

The library letters supplied, will not contain the correct information about your personal details such as your bank account number, but this data can easily be edited into the letter patterns. The 100 Letters manual is written at grass roots level. Meaning that every instruction has a complete step by step sequence, explaining how to create a name and address file, how to use your own name and addresses file, how to edit the library letters and how to write your own letters from the simple single letter patterns, to the most complex multi letter patterns.

The Limit

Even the most cautious of Info-Script users will be able to write single purpose letter patterns and if only this type is used then about another 40 letters can be added to the library. Multi purpose letters are a little more complex but are well worth the extra effort. Using these, the upper limit depends only on the skill of the writer and several hundred should be no problem.

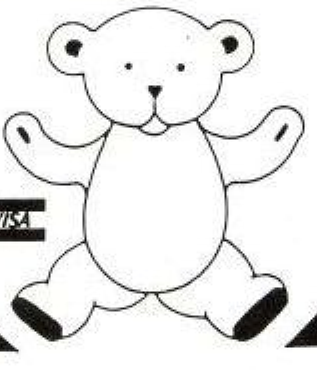
A third type of letter pattern is mainly aimed at business users such as solicitors, doctors, school teachers, estate agents etc. In this case the letter consists of up to ten pre-written paragraphs. This letter is used in the normal way, by typing the letter number into the ACTION field but you would also indicate which of the paragraphs are to be used. A pattern for this is on the 100 Letters disc. If you use this as your starting point and carefully edit the text without changing the control pattern, then you need no more skill for this, than the single purpose letter pattern. Subject to adequate disc space, 40 separate letters could be added using this style.

Elite

BrunWord Elite printed this advertisement except for the layouts around the teddies. The text, lines and price list for each page were printed on A3 sheets using a 24 pin printer, the teddy and address layouts were pasted on and the sheets photographically reduced to A4. (The large headings had extra help).

Send cheque/PO/Access number/Visa number to:

Brunning Software
34 Helston Road,
Chelmsford, Essex, CM1 5JF
Telephone (0245) 252854 (24 Hours)



BrunWord 6128 with BrunSpell & DataFile. . . £30.00
BrunWord 464 with BrunSpell & DataFile. . . £30.00
BrunWord Elite 6128, Info-Script & BrunSpell. . £90.00
Info-Script 6128 with BrunWord & BrunSpell. . £50.00
100 Letters (needs Info-Script). £15.00
BrunWord Elite and Info-Script include backup disc.
(All supplied on 3in Disc - state which computer)

All prices are inclusive for UK. Overseas orders sent insured air mail - Europe add £2.50 : Rest add £7.50

The ROM has gone

Phil Craven tells you where to get your hands on a ROM and speaks highly of another Brunning software product.



Remember the Romchanger project that we published last March? The one that allowed 464 owners to upgrade to the 6128 system without needing to open up their computers? It is by far the most popular project we have ever done. So much so that people are *still* making it – or at least trying to. Those were the good old days when computing was fun, and learning machine code was our only problem. The sun shone brightly on our efforts and everything came up roses. Remember those times? Those were the days when 6128 ROMs were freely available and 464 users could choose whether to upgrade or not.

Amstrad has recently decided to stop selling the 6128 system ROM. it is still available as a spare part for repair purposes, in which case the old ROM has to be sent in for a new one to be got out but, alas, it is no longer available as an outright sale item. This means that all you would-be 'upgraders' have been well and truly scuppered! You might wonder if Amstrad realises that people still want to convert their 464s into 6128s. Well, yes it does. In fact, upgrading is the very reason it has decided to stop selling the ROM but it isn't quite as mean as it first appears.

The problem is that Amstrad owns only half of the 32K ROM. The other half is owned by Locomotive Software and leased to Amstrad for selling inside 6128s. A royalty is paid to Locomotive for each 6128 sold but they receive nothing for ROMs sold separately. With so many users upgrading their machines, Locomotive decided that enough was enough and a decision was made to stop selling the ROM separately.

So where does this leave any would-be upgraders? There are still some ROMs about, and if you're quick on the phone you might be lucky. When they are gone, it seems as though that will be that.

Now for some good news. Exactly a year ago we printed a review of the three tuners which would turn your monitor into a TV set. At the time the Dk'Tronics one sold for £79.95, the Screenvision for £64.95 and the Amstrad MP3, if you could find it separately, went for about £80. Since then things have changed a bit. The Screenvision is still selling for the same price, the Dk'Tronics has come down a tenner but Amstrad's tuner has been on sale recently for as little as £35. I thought it was just a quantity being 'sold off', but listen to this: the Amstrad User Club is selling them for £29.95 to non-members and down to £24.95 to members. Phew!

It is powered from the 12 volt socket on the front of your monitor, but if you haven't got such a monitor you will need an MP2 modulator. A year ago another £15 got you a matching clock/radio and these are currently around for less than a tenner. K. & M. Computers is one place to get one at that price.

In February we looked closely at *Brunword*, the word processing packages with a difference. To refresh your memory, it's the one with built-in database and spelling checker. The

next offering from Brunning Software was *Info-Script* which comprised the original Brunword word processor but the database section was replaced by a fully relational and much more powerful one. So then were were two major products available from them. Their latest offering is *Brunword Elite*. The same word processor is included (see the Feb. issue for a full rundown), the same relational database is included but this time the new addition is its printer handling capabilities. In fact, so comprehensive is it with its printer handling that the package is perhaps better described as a page maker rather than a word processor.

It shouldn't, however, be confused with an outright desk top publisher which allows you to layout a page of text and graphics on screen prior to printing. Brunword Elite is a word processor, not a DTP package, and prints at word processing speed but it does allow complete flexibility with the printed layout of a page though not the screen layout. For instance, you can print in anything up to six columns on paper but each column would appear to be one very narrow page on screen. Newspaper style layouts can even be achieved in column mode by mixing different type sizes, bold, condensed, super-script, etc. and by writing parts of text to be two or more columns wide. That's a good start, but the power of Brunword Elite is much more extensive than that and is limited only by the capability of the printer it is used with. More flexibility can be achieved with printers that are capable of reverse line feed and download new fonts, for instance, than can be achieved with those that can't and it's fair to say that the best results are possible with a 24-pin printer. That's not to say that it doesn't work wonders with 9-pin printers but you would need to check your machine's capabilities.

Right, let's get stuck in. For your money you get a special printer cable, two identical discs for the software, one fonts and examples disc and two manuals, one for Info-Script and one for Elite. The cable has an 8-bit printer port incorporated into it and some clever logic which continually checks whether the printer is on-line, off-line, switched on or switched off. This information is displayed on screen whenever the printer is to be used and, unlike some software, it won't let you output to a printer which is not ready. I must point out that the 8-bit port is specific to Elite and is no good for general purpose 8-bit use. (You'll have to go back to August and make our 8-bit printer port project for that).

The Elite-specific part of the manual takes you through all its features, starting with those applicable to all printers, then those applicable to printers with reverse line feed and auto justification and, finally, features which apply only to 24-pin printers. An excellent way of learning anything is by doing it, changing things and seeing the results, so extensive use is made of the example files supplied.

The way the printer is controlled is by a set of incodes which are placed in the text, sometimes to be acted on as they occur and sometimes to be acted on later. The latter are called delayed incodes. It is common for a document to start with a number of incodes at the top which set the printer up as required. When outputting to the printer, the program scans the text for all incodes, logs them and performs each one as and when it is needed. Quickly running through the incodes: all printers can have their line spacing set to the nearest 1/216" (9-pin) and 1/180" (24-pin). It can sometimes be useful to have the printer margins set differently to the screen margins. This can also be done. Header and footer margins can be set to be different to the text – good for column mode; strings of printer control codes can be embedded in the text with an incode; a disc file, which could even be graphics or ultra large text, can be sent straight from disc to printer, again from mid document with an incode; temporary margins can be set and of course anything up to six columns can be printed. These apply to all printers.

If your 9-pin has reverse and justification, there are incodes to make full use of them, including justify right, left and centre. The reverse facility permits the resetting of the printer not only to any line on the margin code, resetting to any point on the page can be done and this feature demonstrates another layout method. We have already seen the column way, which is good for relatively simple layouts. Now we can see what I consider to be a better way. Blocks of text can be written in a self contained manner and simply printed onto the page in any place and in any order. You can literally write short items separately and weave them together into a page layout later.

How many times have we read letters saying that some software packages don't do justice to a 24-pin printer? Not so Elite. Two further incodes are included especially for 24-pin printers. The fonts and examples disc contains four alternative font styles and sizes which can be uploaded to the printer as and when needed. For example, a heading might be desirable in a computer type font and the text in another style altogether. Naturally, this can be done, with each font being uploaded from disc to printer as it is needed. Finally, boxes and lines of selectable thicknesses can be drawn anywhere on the page. Before summing up let's not forget the 24-pin's double height capability. It can be accessed via the 'direct printer control' incode but, since it is set up on a function key along with the more standard codes like condensed, double strike and such, it is more usual to do it with an ordinary control code.

I have talked mainly about the part of Brunword Elite which is over and above Info-Script, printer controls. But don't lose sight of the fact that printer controls are only preparing the way for text to be printed. The Brunword word processor is at the hart of Elite and the database can also be used to decide what text to print. It is a complete integrated package and to compare it with any other type of software package would not be right. Yes, it is used for page layouts as are desk top publishers but, unlike DTP packages, it is a very powerful word processor and database and prints at WP speeds. Unlike DTP packages, you can't design the page visually on screen as such but then DTP packages don't do word processing or databasing. Yes, it is a word processor and yes it is a database but no other package combines those two aspects. It's definitely a one-off and we are stuck for a comparison. We can't even fit it into the 'everybody should have one' category because, if a word processor is needed, other products, including Brunword, are cheaper. If a word processor/database/page designer is the order of the day then it's the only choice you've got. I guess it must be concluded that Brunword Elite is excellent if it does what you want for your purposes. Personally, I would not like to be without it, but then I have a number of uses for all aspects of it.

Multiface marvels

Vax lays it on thick this month with more breathtaking pokes, starting with a suitcase of Multiface delights from lovely Kenilworth.



Boy, we've got a full house this month. Those lucky Multiface owners who got one before the ban will be especially delighted as I've got a list of Multiface pokes for you to play with, and to stop the rest of you whingeing, a dozen or so pokettes of the more ordinary variety.

Still, on with the Multiface poke list, this one being from an Earthling by the name of Carl Wilson from Kenilworth:

Big Foot	0601 0	30,000 Lives
Breakthru	BE38 0	255 Lives
Brian Bloodaxe	6854 0	Infinite lives
Chuckie Egg II	7A0D 0	Press fire for down auto
Chronos	81EB 0	Bonus always on screen
	8C5B 0	Aliens only
	6BF1 0	Re-change screens
	73бB 0	Infinite lives
Death Stalker	1589 0	No sprites
	171C 0	No sprites
	188D 0	No flying bird
Fast Food	633E 0	Go up a level when dead
	570C 0	Infinite lives
	9BF7 0	No music
Grand Prix Sim.	6DE6 0	Computer – no win
	79D1 0	Drive anywhere and live
Gunfright	0EE6 0	Infinite lives
	0FAF 0	Money target practice
1F39 0		'John Wayne' "six" gun
	8246 0	Awful music off
Ikari Warriors	5960 0	Infinite bullets
	59D8 0	Infinite grenades
Mig 29	0CF1 0	Infinite fuel
	08C8 0	Infinite lives
	0D2F 0	Stay on level 1
	0EE6 0	Infinite lives
Mr. Heli	A720 0	Immunity. (Enter both heli pokes
	109F 0	Infinite lives. for each level)
Ninja Massacre	6041 0	Change music
	7ED2 0	No sprites
	89D1 0	Infinite strength
Rebelstar	046C 0	Raiders always have a go
	1911 0	* Leave one droid before pressing ctrl + 0 then enter this for more droids
Roadblasters	0476 0	280 mph
	168F 0	Looks like a faster game
Tombstowne	90C3 0	Longer energy
Bombfusion	&4A71,0	Infinite lives
Nebulus	&858F,0	Stop clock
	&85C7,0	Infinite lives
Scooby Doo	&7683,0	Infinite lives
Jet Set Willy 2	&81F0,no	No lives entered
Sacred Armour Antiriad	&6BC4,0	Baddies less dangerous
1942	&EB3,&FF	Infinite rolls
International Karate	&93CD,0	No fight delays
	&90A2,&FF	Increased time limit
Rocky Horror	&C44,0	Infinite time
	&C4F,0	
	&C58,0	
	&C68,0	Stops freezer defrosting
Mission Fortress	&5C6,0	Infinite lives
Terminus	&365A,0	No baddies
	&33A2,0	Infinite thrust
	&3176,0	Ability to go through walls on the right hand side
Lightforce	&760D,no	No lives entered

Our faithful friend John Girvin of Belfast has been at it again. Only the one, but I think that's because he's been playing it for most of the time. It's for Player's *War Machine*. It's a sort of Exolon-meets-Cybernoid and is one of those games that really should be in the charts.

```
1 'WAR MACHINE hacks
2 'By John Girvin
3 'October 1989
4 '
10 MODE 0:OPENOUT"d"
20 MEMORY &232A:CLOSEOUT
30 LOAD"!",&232B
40 addr=&BE80:RESTORE
50 READ byte$
60 IF byte$="DIEFILTH" THEN CALL
   &BE80
70 POKE addr,VAL("&"+byte$)
80 addr=addr+1:GOTO 50
90 '*** LEAVE 100-120 IN ***
100 DATA 21,2b,23,11,2b,03,01,c3
110 DATA 00,ed,b0,21,94,be,22,bb
120 DATA 03,c3,2b,03,3e,a7
130 'Inf. bullets
140 DATA 32,a8,19
150 'Inf. lives
160 DATA 32,b3,36
170 'Inf. time
180 DATA 32,a4,49,32,9b,49,32,bb
190 DATA 49
200 'Don't die when energy runs out
210 DATA 3e,c3,32,24,36
220 'Inf. grenades
230 DATA af,32,33,2f
240 '*** LEAVE 250 IN ***
250 DATA c3,40,00,DIEFILTH
```

The pokeykins needs typing in (unless you're into thought transference), saving, running and having a freshly-rewound games tape fed at it. I think you should be able to manage that.

Well, thanks for that one, John, keep it up (and the hacking, too).

Andrew Price has written in again with a huge swag bag of stuffs, including that second Multiface pokelet sheet I was going on about. *International Karate* is the first on his list, and it chops out those awfully annoying fight delays, besides giving you more time to lay opponent-san out on the mat. He did it for the Hit Pak version, and it's anybody's guess if it works on any others:

```
1 ' International Karate cheat
    (both parts)
2 ' by Andrew Price
3 ' Amstrad Computer User
4 ' increased time and no fight
    delays
5 ' Elite hit pak version
10 DATA AF,3C,CD,6B,BC,06
20 DATA 0A,21,73,BE,11,40
30 DATA 1F,CD,77,BC,21,00
40 DATA C0,CD,83,BC,CD,7A
50 DATA BC,3E,41,27,CD,5A
```

```
60 DATA BB,3E,50,27,CD,5A
70 DATA BB,06,07,21,7D,BE
80 DATA 11,00,E0,CD,77,BC

90 DATA 21,40,00,CD,83,BC
100 DATA CD,7A,BC,CD,71,BC
110 DATA AF,32,CD,93,3E,FF
120 DATA 32,A2,90,11,55,BE
130 DATA 21,62,0B,1A,B7,CA
140 DATA 00,A0,77,13,23,18
150 DATA F6,18,48,41,43,4B
160 DATA 45,44,20,42,59,20
170 DATA 41,4E,44,52,45,57
180 DATA 20,50,52,49,43,45
190 DATA 18,20,20,20,20,20
200 DATA 00,4B,41,52,41,54
210 DATA 45,2E,53,43,4E,49
220 DATA 4B,31,2E,42,49,4E
230 DATA 00,00,00,00,00,00
290 DATA AP
300 '
310 MODE 2:chk=0:x=&BE00:MEMORY &3FFF
320 READ a$:IF a$="AP" THEN 340 ELSE
    a=VAL("&"+a$)
330 POKE x,a:x=x+1:chk=chk+a:GOTO 320
340 IF chk<>&3143 THEN PRINT
    "DATA ERROR.":END
350 PRINT"IK part (1) or (2)";y$:IF LOWER$
    (y$)="1" THEN 360  ELSE POKE &BE7F,&32
360 INK 0,26:INK 1,6:INK 2,5:INK 3,0:CALL
    &BE00
```

Andrew Price's next pokeling is an attempt to give you a variable number of lives in the Hit Pac version of *Lightforce*, while whistling 'Waltzing Matilda' and typing without errors. He's done the Lightforce bit, you just whistle and type this lot:

```
1 ' Lightforce cheat - Hit Pak
2 ' by Andrew Price
3 ' Amstrad Computer User
10 DATA 06,02,21,2B,BE
20 DATA 11,4B,06,CD,77
30 DATA BC,D2,2D,BE,21
40 DATA B8,1C,CD,83,BC
50 DATA D2,2D,BE,CD,7A
60 DATA BC,D2,2D,BE,3E
70 DATA AF,32,0D,76,0E
80 DATA FF,21,31,73,CD
90 DATA 16,BD,C9,4C,46
100 DATA C7
110 FOR ad=&BE00 TO &BE2D
120 READ a$:a=VAL("&"+a$)
130 POKE ad,a:c=c+a:NEXT
135 IF c<>&14E5 THEN PRINT"error":END
140 MODE 1:INPUT"No. lives (0-255)";no
150 IF no<1 OR no>255 THEN 140
160 POKE &BE1E,no:MODE 0:CALL &BE00
```

Fairly simple pokette here, gives you more rolls than a burger bar in the Hit Pac version of *1942*:

```
10 ' 1942 cheat - hit pak version
20 ' by Andrew Price
30 ' Amstrad Computer User
40 MODE 0
50 FOR a=0 TO 15:READ ik:INK a,ik:NEXT
60 DATA 0,13,26,2,24,9,18,10,20,1,2,11,4,15,3,6
70 LOAD"!screen.scn",&C000
80 PEN 2:LOCATE 1,1:PRINT CHR$(&41)CHR$(&50)
90 RESTORE 110:FOR ad=&BE00 TO &BE25
100 READ a$:POKE ad,VAL("&"+a$):NEXT
105 CALL &BE00
110 DATA 06,04,21,16,BE
120 DATA 11,00,C0,CD,77
130 DATA BC,21,58,02,CD
140 DATA 83,BC,CD,7A,BC
150 DATA 18,05,43,4F,44
160 DATA 45,00,3E,FF,21
170 DATA B3,0E,77,AF,21
180 DATA BC,89,E9
```

Why are there so many sequels? *Airplane II, Rambo III, Rocky 27,* Mrs Thatcher III . . . the list is, sadly, endless. Still there must have been something in the *Who Dares Wins II* by 5 Star that made Andrew hack it to bits. Or did he do it because it was there. Who dares, cheats:

```
1 ' Who Dares Wins II Cheat
2 ' by Andrew Price 1989
3 ' inf' lives and grenades
4 ' Amstrad Computer user
5 ' 5 star games compilation
10 ENV 1,1,12,1,1,0,5,12,-1,2
20 ENV 2,1,13,1,1,0,15,13,-1,5
30 ENV 3,1,13,1,12,-1,3
40 ENT 3,5,40,1,5,20,1,10,25,1
50 ENV 4,11,1,5,2,0,120,11,-1,14
60 ENT -5,14,-10,1,1,120,1
70 ENV 5,1,15,1,15,-1,12
80 ENV 6,1,12,1,12,-1,9
90 ENV 7,15,-1,2
100 ENV 8,10,1,1,20,0,1,10,-1,2
110 ENT -8,1,1,1
120 ENV 9,1,15,1,15,-1,4
130 ENT -9,9,5,3,1,-45,3
140 LOAD"!loader",&C7DC
150 FOR ad=&BE30 TO &BE50
160 READ a$:POKE ad,VAL("&"+a$)
170 NEXT:CALL &BE30
180 DATA 21,EA,C7,3E
190 DATA 3D,77,23,3E
200 DATA BE,77,CD,D0
210 DATA C7,AF,32,C1
220 DATA 60,32,1A,63
230 DATA 21,EA,C7,3E
240 DATA 10,77,3E,A0
250 DATA 23,77,C3,E9
260 DATA C7
```

Alright, I surrender. All those people sending in letters saying "Can we have *Jet Set Willy II* again, please? PS I think your column is brill." can save their postage and put it aside until JSW III comes out. Here's the pokeykins for the Hit Pac version, and this is for positively, and finally, the last ever time. All 9 lines of it:

```
1 ' Jet Set Willy 2 cheat
2 ' By Andrew Price
3 ' Inf' lives elite hit pak
4 ' Amstrad Computer User
10 MEMORY &1FFF:INPUT"464";y$
20 LOAD"!jet2.bin",&3100:LOAD"
   !jet3.bin",&7100
30 IF y$="N" OR y$="n" THEN POKE
   36174,&49:POKE 36175,&B6
40 POKE &82A8,0
50 RUN"!jet1.bin"
```

Andrew sent in pokettes for *Batty* (which we published before), oh *Mummy* which has been done to death), and *Galactic Plague*. The Galactic Plague required a deprotecting program to use, which I can't print for legal reasons. It is OK for me to publish loaders you have re-written, but not Basic deprotectors, even by accident. Yours would probably be smaller and more reliable anyway.

However, sneaking things round a speedlock loader is still on (if naughty people modify it to write the whole of memory out to disc, this is not my problem) and Andrew has done just this with *SAD Combat Simulator*, and very neatly too:

```
1 ' SAS Combat Simulator pokes
2 ' by Andrew Price
3 ' Amstrad Computer User
10 DATA 2A,38,BD,E5,AC
20 DATA E1,22,33,BE,AD
30 DATA 21,37,BD,3E,C3
40 DATA 77,23,3E,23,77
50 DATA 3E,BE,23,77,21
60 DATA 40,00,E3,11,00
70 DATA BB,00,C3,4A,3A
80 DATA 3E,FF,32,86,32
90 DATA 32,8B,32,AF,32

100 DATA AA,49,EE,38,AF
110 DATA cF,41,50
120 MEMORY &3A00:LOAD""
130 FOR ad=&BE00 TO &BE34
140 READ a$:a=VAL("&"+a$)
150 POKE ad,a:c=c+a:NEXT
160 IF c<>&15E5 THEN 180
170 CALL &BE00
180 PRINT"Error!!":STOP
190 ' HOORAY, AT LAST!
```

Ever played the Hit Pac *Scooby Doo*? Did you turn into a Scooby Don't as well? Never fear, Andy Price is here. This pokelet does more for Scooby than Bob Martin's Conditioning Tablets ever did:

```
1 ' Scooby Doo cheat
2 ' by Andrew Price
3 ' Inf' lives for hit pak
4 ' Amstrad Computer User
10 DATA 06,05,21,4A,BE,11,00,80
20 DATA CD,77,BC,21,DC,05,CD,83
30 DATA BC,CD,7A,BC,3E,C3,21,4B
40 DATA 06,77,23,3E,25,77,23,3E
50 DATA BE,77,CD,DC,05,FD,E5,DD
60 DATA E5,C5,D5,E5,F5,AF,32,83
70 DATA 76,3E,CD,21,4B,06,77,23
80 DATA 3E,16,77,3E,BD,23,77,F1
90 DATA E1,D1,C1,DD,E1,FD,E1,C3
100 DATA 4B,06,45,4C,49,54,45,00
110 DATA AP
120 add=&BE00
130 READ a$:IF a$="AP" THEN CALL &BE00
140 POKE add,VAL("&"+a$):add=add+1
150 GOTO 130
```

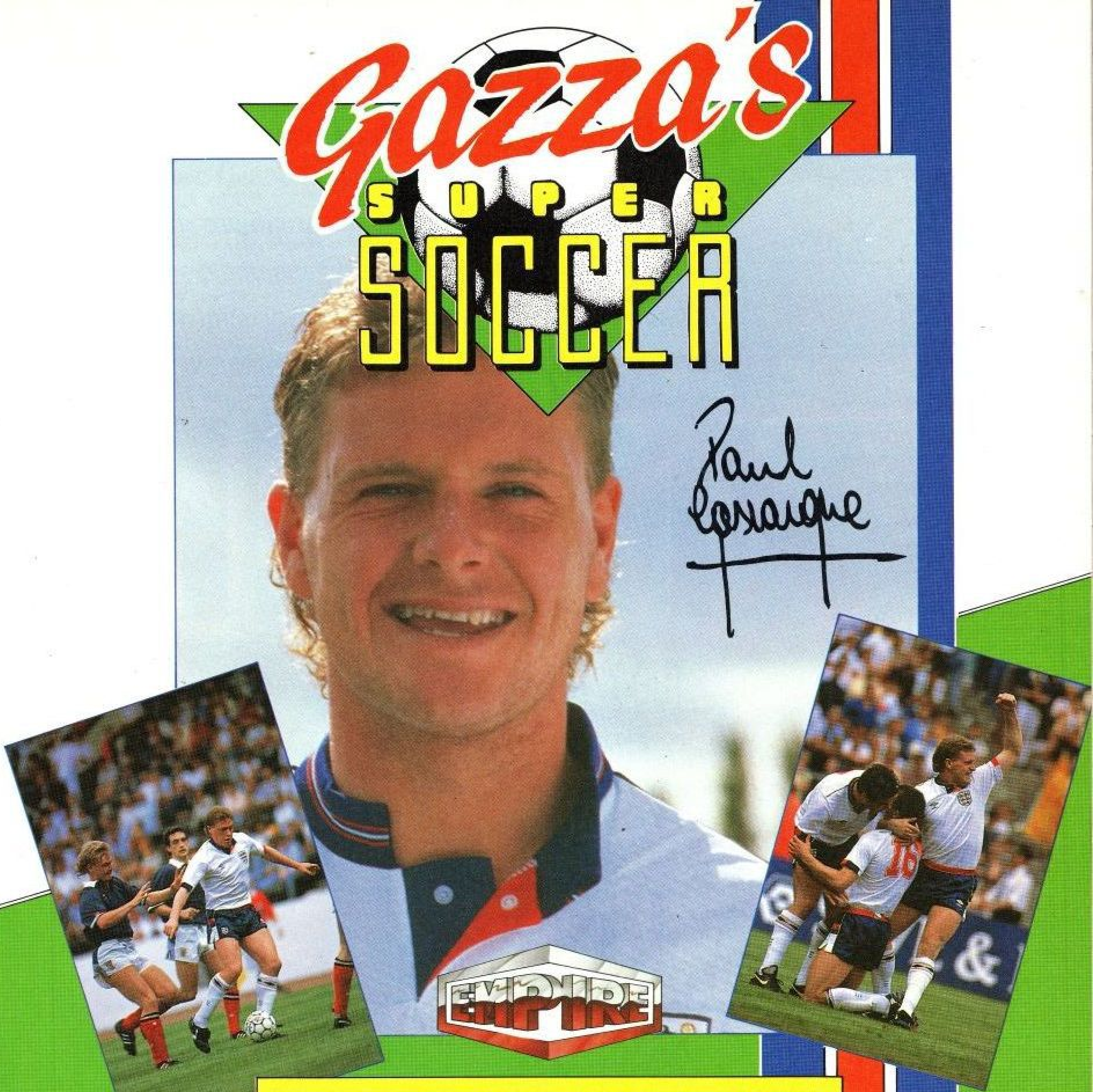
Andrew also sent in a little game for my criticism, and here it is: sprites too small, sprites don't change direction when they move different ways, and some trouble moving horizontally right. Apart from that, not bad. Maybe a magazine listing later if you tart it up a bit?

Goodies coming your way Andrew. I've more of your stuff, and I'll give more goodies for it later. The rest of

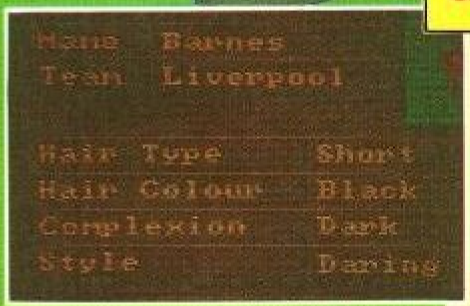
you, keep the pokes coming, and I'll delve further into my goodie bag.

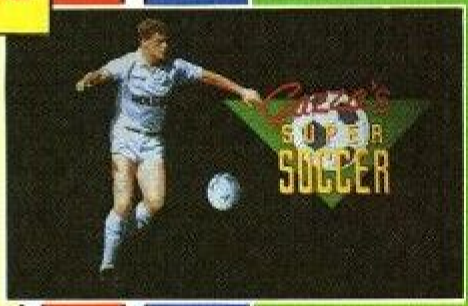
OK, game over. So, we'll call it a day until next month when I'll have either recharged my batteries, or turfed them out and installed duracells instead.

Love 'n' stuff,
Vax, Suz & Kate



GAZZA'S SUPER SOCCER – SIMPLY SENSATIONAL





Superb fast action gameplay featuring real teams from the Football Leagues.

- Each team defined with the correct strips.
  Create your own superleagues, cup competitions and build your strongest squad.
- Each player in the team has his own characteristics- skill level, speed and style of play. The skill level of your team can be improved through playing well.
- Realistic ball control allowing you to chip over, curl round or dribble through the opposition. The unique "Boot-O-Meter" enables you to vary the strength, height and spin of any kick.
- Full control of corners, free kicks and goal kicks.
- Heading, tackling and fouling.
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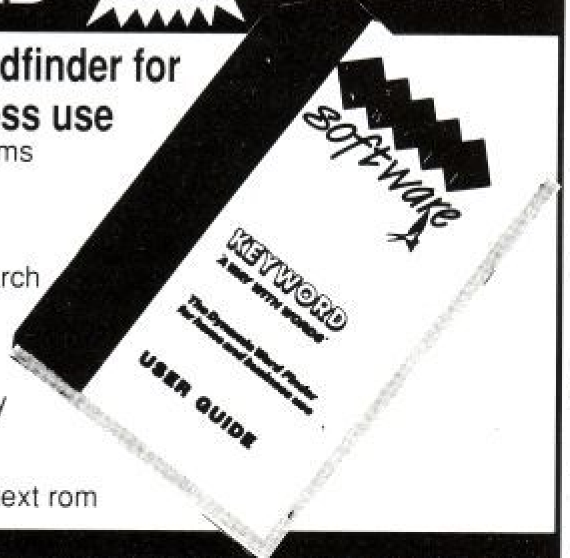
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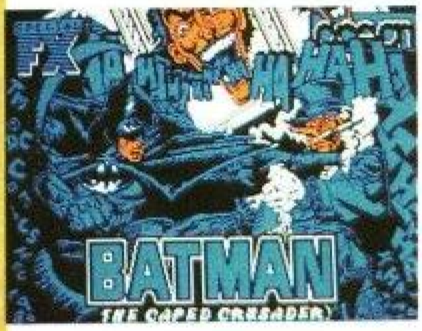
Another Giant Haystacks of a Gameplan this month, majoring on X-Out, the underwater spectacular. Other faves include The Biz compilation and Beverly Hills Cop. Also, we present another budget basement.

GAMEPLAN



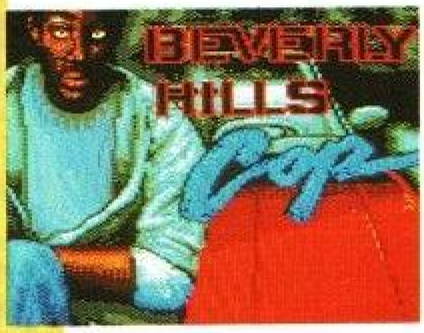
X-OUT

A soggy adventure in the depths of the world's oceans, now infested with aliens.



THE BIZ

Ever played arcade Operation Wolf, R-Type, Double Dragon and Batman? Then you'll like this.



BEVERLY HILLS COP

Guide Eddie through four challenging levels and have it out with the head baddie in his mansion.

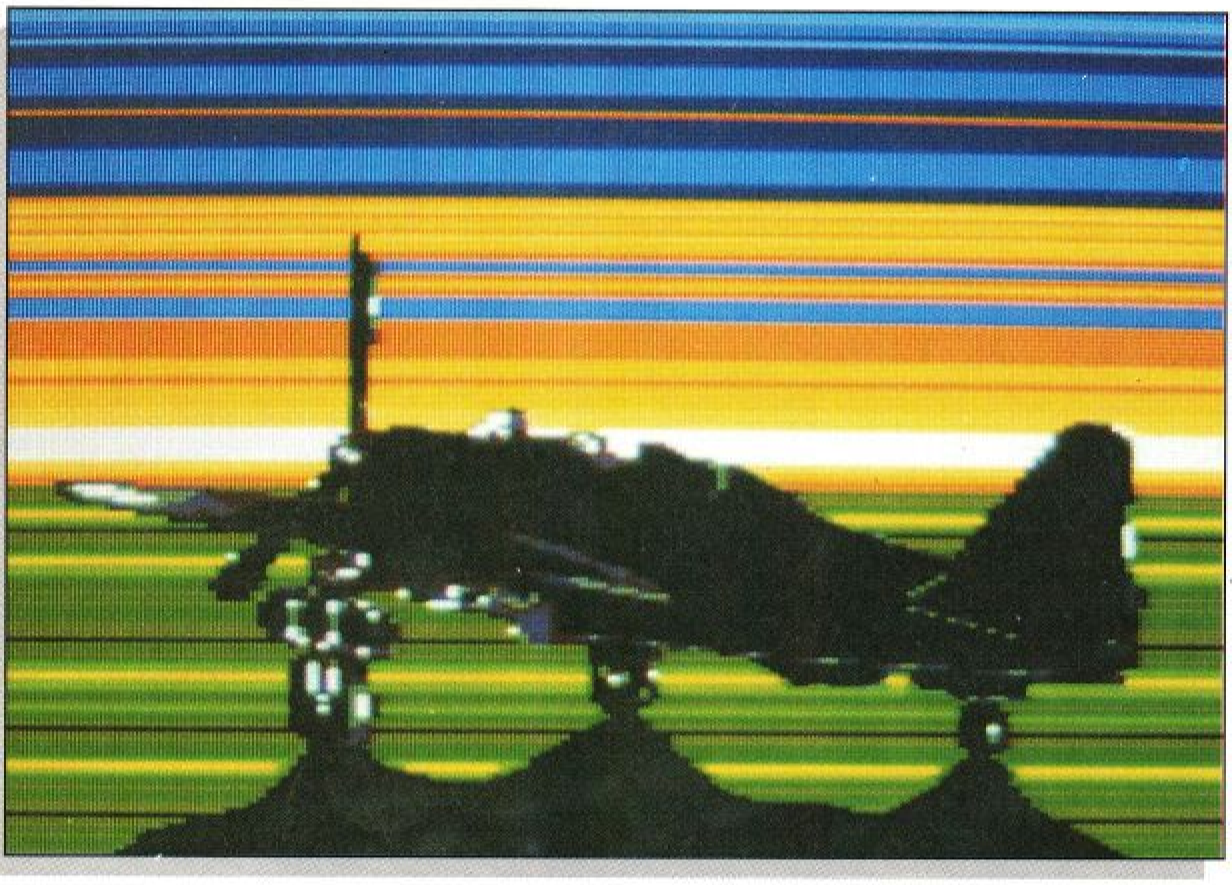
PLUS!

P47, Jack Nicklaus's Golf, Spherical, Rock 'n Roll, Ninja Warriors, Laser Squad and five budget offerings.

TOP 20

1	(1)	Batman - The Movie	Ocean
2	(3)	Paperboy	Encore
3	(20)	Chase HQ	Ocean
4	(4)	Operation Thunderbolt	Ocean
5	(5)	Ghostbusters 2	Activision
6	(NE)	Fantasy World Dizzy	Code Masters
7	(NE)	Turbo Outrun	US Gold
8	(NE)	Gazza's Super Soccer	Empire
9	(2)	Robocop	Ocean
10	(7)	Crazy Cars	Hit Squad
11	(12)	Untouchables	Ocean
12	(NE)	Hard Drivin'	Domark
13	(6)	Pub Trivia	Code Masters
14	(NE)	Nigel Mansell's Grand Prix	Alternative
15	(NE)	Buggy Boy	Encore
16	(19)	Twin Turbo V8	Code Masters
17	(8)	100% Dynamite	Ocean
18	(16)	Power Drift	Activision
19	(NE)	Count Duckula	Alternative
20	(NE)	Ghouls and Ghosts	US Gold

Last month's position in brackets
Top 20 compiled by Gallup



P47 Thunderbolt

Fly by the seat of your pants as you control a fighter bomber with limitless ammunition.

"The hangar was cold. The planes even colder. Heavy Government cutbacks have left us pilots barrackless. It is a little daunting having to wake-up next to a Republic P-47 Thunderbolt fighter. Try it sometime.

"The year is 1943. Out there, the world is at war. The darkness, cold and black, slow and silent, is draped in death and the unknown. Nerves are frayed and bananas nowhere to be found. The stench of charcoal and burning carrots filled even the largest nostrils. War was undoubtedly a



heavy gig.

"As Wing Commander of the USAAF 8th Air Force (following a transfer from the RAF) it is my job to lead the P-47s into some menacing air space deep down enemy territory. The 'Lead Sled', as it is known to barproppers in the mess, has exceptionally good dive characteristics which would have won a perfect score at the Big Ten dive championships any day. In the air the plane handled a dream, although coming from Spitfires, I was used to the best."

That was an extract from my grandfather Bertrund Bread's memoirs as a World War II flying ace. His transfer to an American air corps has subsequently plunged the family into disgrace though it could not be denied that he was British through and through and hero of the sky to boot.

Perhaps as a tribute to my grandfather, Firebird have released a game for the CPC which incorporates all the hell-fire glory of the P-47 Thunderbolt fighter. There are eight levels of turbulent enemy activity which fire from above and below. The first level takes you over enemy lines with on-coming aircraft, tanks and anti-aircraft guns poking in your face. The P-47 is equipped with a limitless machine gun magazine but as you venture further on it is possible to pick-up other armaments. There are four types of armament, bombs, spray missile, multi-missile and directable fire. You can also pick up a speed-up function and an extra life, which helps.

At the end of the first level you are faced with a train decked-out with gun emplacements. Using your fine sense of judgement the plane has to dodge the bullets and bomb the train about 32 times before it is destroyed and you can proceed onto the second level.

The second level takes you high above the clouds and to a beautiful scene of an orange and yellow glow across the cloud tops. The enemy, however, knows you're there and hits you with a barrage of aircraft including the occasional (large) fighter bomber and a volley of surface-to-air missiles. At the end of this scene a large enemy fighter has to be destroyed to reach the third level. To achieve this feat it is probably best to use the directable fire and not the bombs.

With the third level you are taken out of the clouds and down into a more mountainous region where the main obstacle is the ground fire. This is easily overcome but at the end of the level you are faced with a somewhat oversized armoured tank. This proved a more difficult obstacle and I have yet to set it on its journey to the great home in the sky.

The graphics are actually very good and the movement of the aircraft is quick to react to your controls. Although it is easy to play, P-47 throws up enough complications to provide you with a challenge.

The game is enjoyable and will probably hold the attention for a while as you struggle to overcome the rigours of war. But remember, war is not fun and only leads to pain and a substantial loss of potato farms.

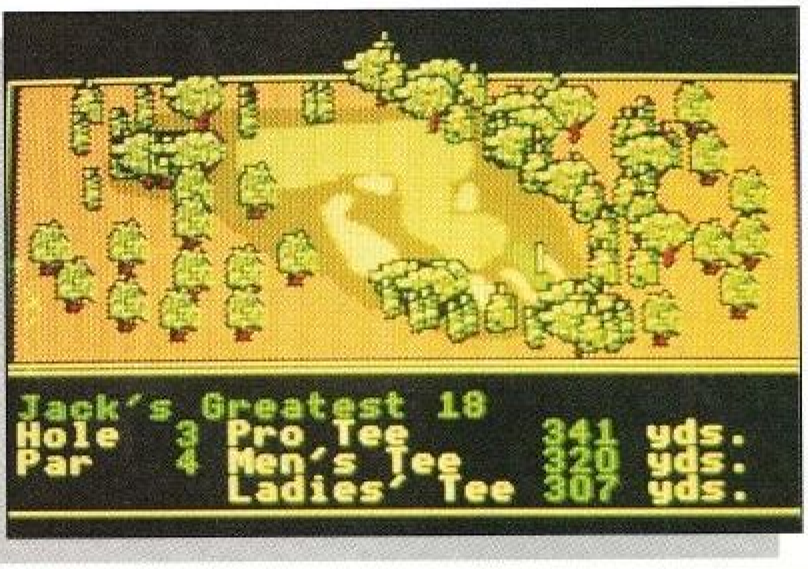
Basil Bread

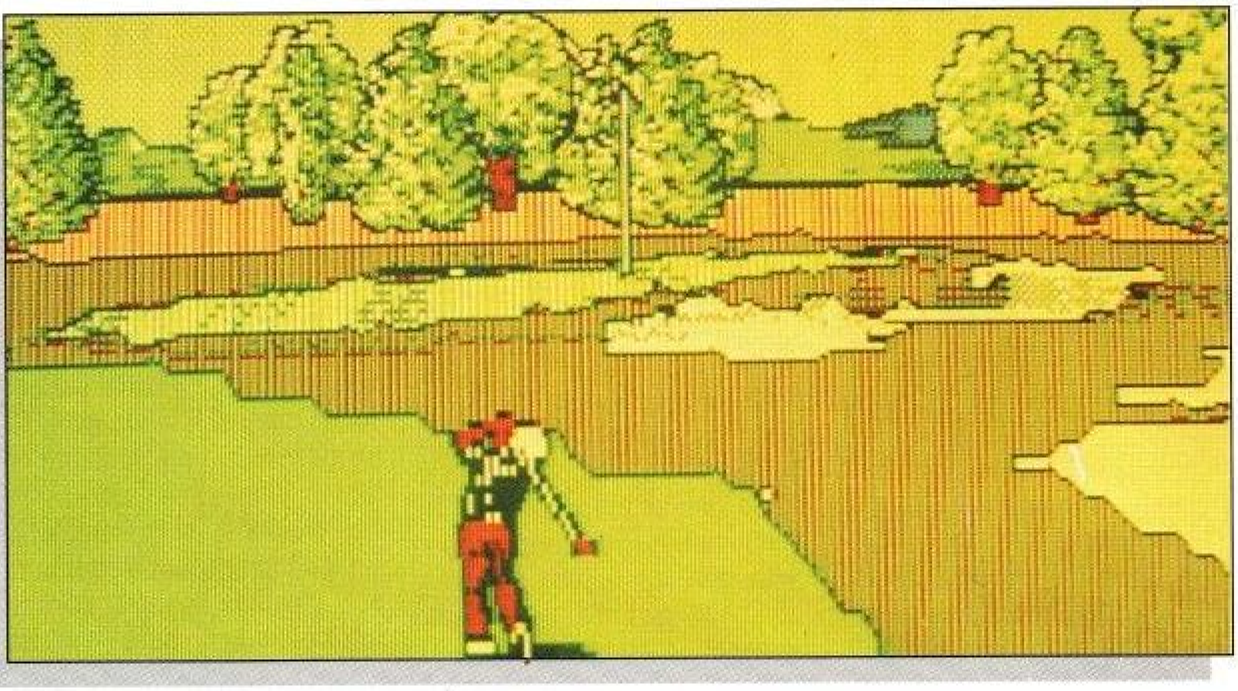
ROUND-UP

NAME	P47 Thunderbolt		
SUPPLIER	Firebird	PRICE	Disc £14.99 Cassette £9.99
62%	55%	68%	
GRAFFIX	SONIX	PLAYABILITY	VERDICT

Jack Nicklaus

Keep your head down, legs bent and your eye on the ball as you make your way slowly to the green in this tricky little golf simulation.





Fore! Good shot sir, and that's a fine pair of chequered slacks you're sporting. Is that a Marks and Spencer sweater? Ooh, yes sir, a fine looking set of clubs, and a real mohair golf bag. You must earn a pretty penny. What was that? Jack Nicklaus? You're that golfer on the telly aren't you? Thought so. I've been playing your game. You know, the one on the CPC thingy.

When I bought my copy I thought, wow! I can travel around the world's best courses in the confines of my living room. So I did, and I played on 18 courses from Augusta to Royal Lytham and St. Andrews. I also played on the two courses that you designed especially for the occasion, in Colorado and Arizona. What I liked about it was the fact that I could play a variety of computerised people, play with some friends or with a computerised version of your very self, Mr Nicklaus.

The loading of the game is a little slow, especially with the cassette version, which meant that the games seem to last forever. A long walk up the fairway to the position of the ball becomes a five mile trek across some fairly boring rough. As I was a beginner, the program chose the clubs for me, although with a bit of practice I could probably venture to remove the stabilisers and choose them myself.

One of the most difficult aspects I found was coping with wind directions which tend to vary during the course of the game. This coupled with the distance/strength dilemma makes for a fairly complicated game to master. As with the real world golf, like the game you play Mr Nicklaus, I had to contend with the natural obstacles such as trees and rivers, hills and that wonderfully inventive, man-made obstacle, the sand pit. I'm sorry? Oh I see. That man-made obstacle, the bunker.

To hit the ball I had to judge the distance and press the space-bar to start the backswing. A powerbar to the left of the screen indicates the power with which the ball will be struck. To stop the backswing and the powerbar the spacebar has to be pressed again. More often than not you see the ball playfully bounce off the tress, along the rough and into the river. It's a tough old game, Jack, and I'd be grateful for a few tips.

As I progress along a course, each hole begins with a map, showing me the obstacles that I am about to hit and the hole that I will probably never see. Nevertheless, there are some aids to help you through the hazards and stormy conditions. An indicator to the left of the screen shows wind directions and speeds and when you are in a green, it will show you the direction of the break. Balls often break to the left or right when aiming straight at a hole. Scorecards are also kept, informing me of my longest drive and so on. These are compared with the opposition.

It's a nice idea, this golfing game, with some nice control options, although it's a little slow between commands. The graphics are good when they eventually appear and the challenge is enough to keep you interested for as long as it takes to reach a good level. All in all Jack, I'm content. There's just one thing . . . do you play cricket?

Marc Jones

ROUND-UP

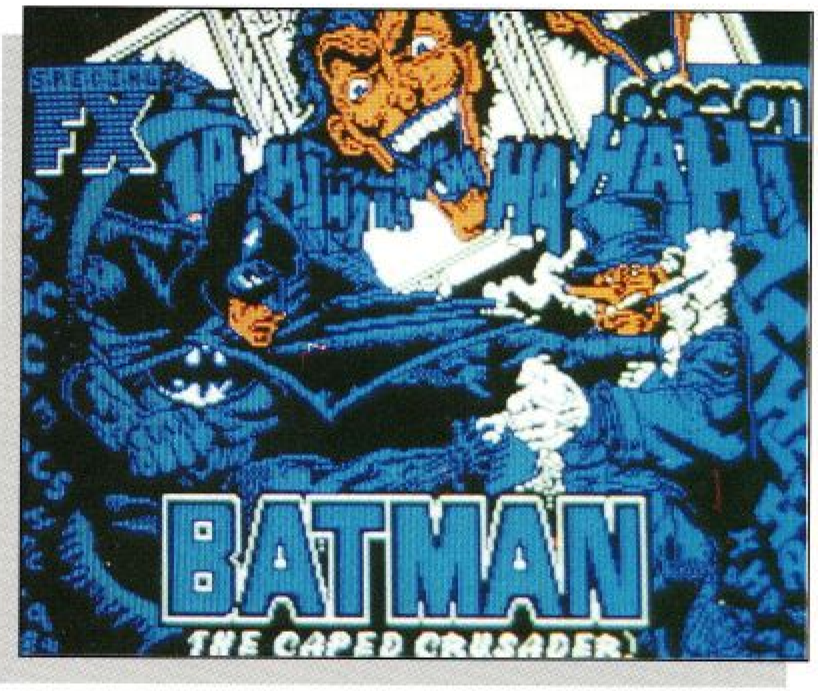
NAME	Jack Nicklaus
SUPPLIER	Accolade
PRICE	Disc £14.99 Cassette £9.99

GRAFFIX	SONIX	PLAYABILITY	VERDICT
60%	20%	68%	

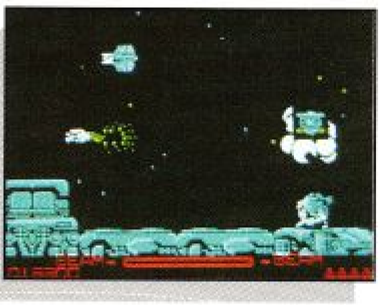
The Biz

Four major CPC game releases from last year are brought together by Ocean, with pleasing results.

Game compilations in the past have been very much take it or leave it affairs. Often half the games included as part of a compilation are cheap and cheerful, hence their appearance. With this new release from Ocean, things are looking up. Called quite simply *The Biz*, this compilation contains four of the best selling CPC games from 1989. The four games are *Batman – The Caped Crusader, R-Type, Operation Wolf* and *Double Dragon*.



In Batman, you must take the role of the wearer of the most famous leotard in the world. There are two plots to the game where you as Batman are matched up against your arch-enemies, the fiendish Penguin and the sadistic Joker. In the Penguin plot, subtitled 'a bird in the hand', the Penguin has just been released from prison and goes back to his mansion where he sets up an umbrella production factory. Of course, this is only a smokescreen for the Penguin's main objective, which is a plan to take over the world by using robotic penguins. You have to find the Penguin's master control computer, close down his operation and prevent the world from getting overrun with Arctic four.



The second game plot, which involves the Joker, is called 'a fete worse than death'. Alas, poor Robin has disappeared and the only clue Batman can find is a single card which features the sign of the Joker. At first glance the card does not reveal too much, but further examination on the bat-computer reveals a mystic message. You must find out what this message is all about, find where Robin is, rescue him, defeat the Joker and return Gotham City back to normality. Phew!

R-Type is a CPC conversion of the excellent IREM Corporation arcade game, which in itself is a wonderful horizontally scrolling shoot 'em up. There are a number of levels to play in and you will only proceed to the next level once you have completed the previous one. In R-Type there is a lot to shoot on the screen and there is also much for you to collect, with added weapons for each jewel you manage to save. The game plays fast and requires quick thinking. Graphics again are good and so are the sound effects, unfortunately there was not any theme music before, during or even after the game. Nonetheless, R-Type is all good stuff.



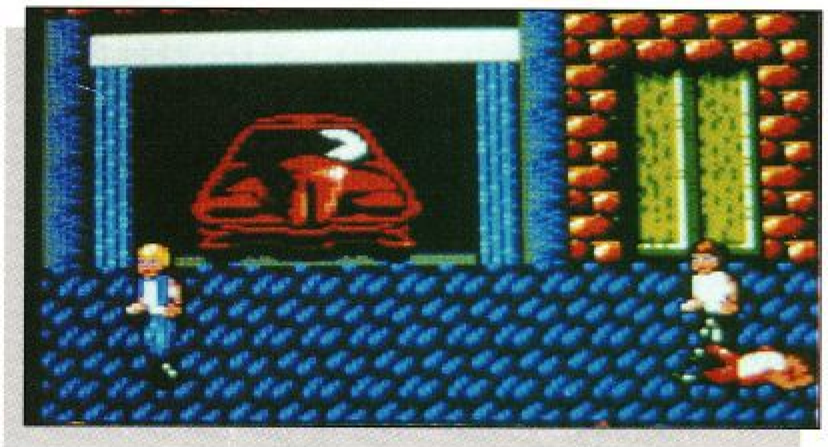
Operation Wolf, is a vertically scrolling commando-style game, as I'm sure you know. Rather than controlling all aspects of your macho character, you control just the weapons and must aim them at your enemy who will be shooting at you from the screen. You are parachuted in to hostile territory where the enemy is holding captives which need to be rescued. There are six levels to Operation Wolf each one harder than the last. If its shoot 'em up action you are after, then Operation Wolf will get you endless hours of mindless violence. Great fun all the same though, with great graphics, fast action and atmospheric sounds.

The last game in the compilation is Double Dragon which also happens to be the weakest. Double Dragon is a standard run-of-the-mill martial arts style game which involves a lot of kicking and punching.

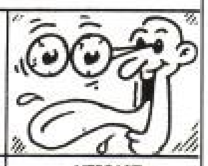
Sadly for a martial arts game, Double Dragon is very slow which spoils what otherwise could have been good fun.

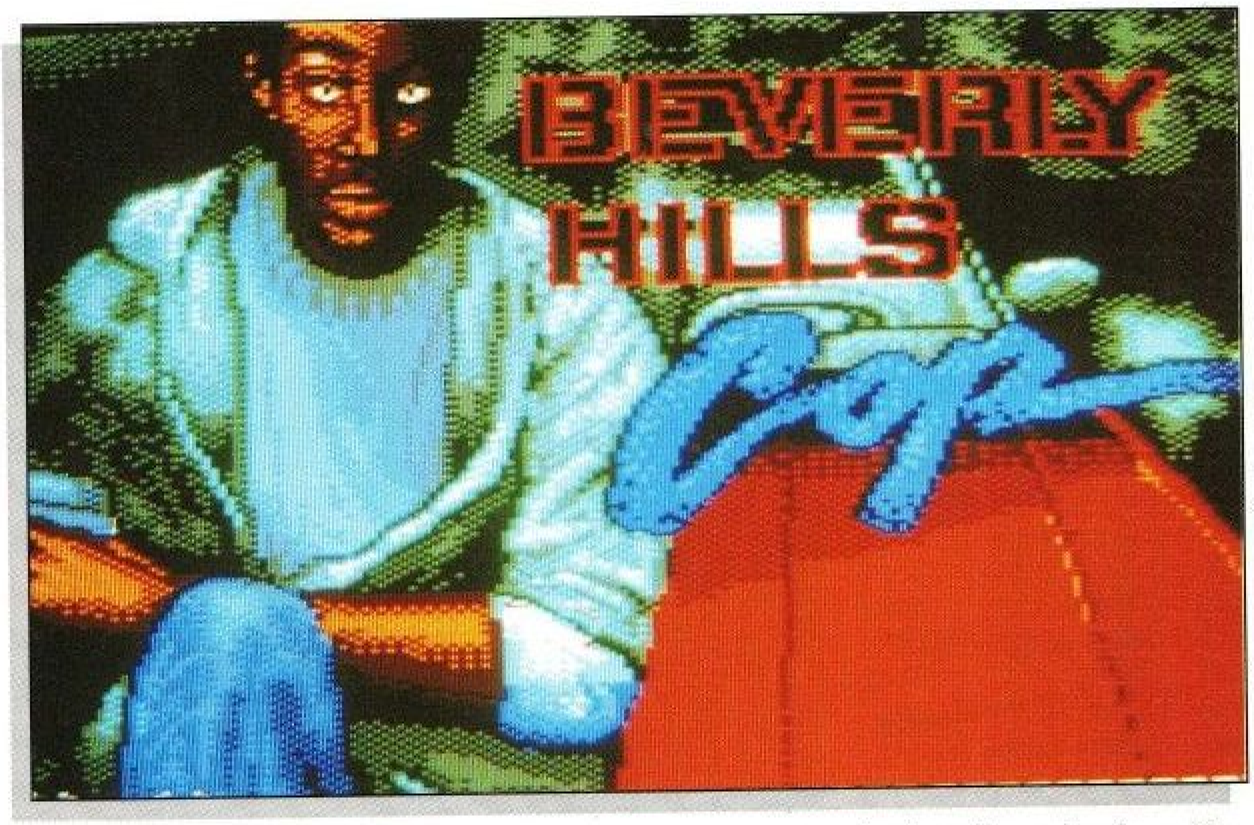
So there you have it. Three very good games and one average one, but together they represent excellent value for money.

Leslie Bunder



ROUND-UP

NAME	The Biz		
SUPPLIER	Ocean	PRICE	Cassette £9.95
80%	80%	90%	
GRAFFIX	SONIX	PLAYABILITY	VERDICT



Beverly Hills Cop

Guide Axel Foley through four stages of action ranging from car chasing to 3D baddie blasting.

Beverly Hills Cop was a monster success as a film, so I dare say Tynesoft was hoping that the game would be able to generate not inconsiderable sales on the back of it. Unfortunately for Tynesoft the hype and interest surrounding the film, and its sequel, has long since died down, rather depriving a worthy game of the oxygen of publicity.

Oh well, at least you know who the game is about, if not what. As a crusading journalist and would be thespian I prepared for my role as Axel Foley meticulously. I swaggered around my living room waving a water pistol threateningly at my cat every time it tried to make a run for it, and practiced sneering in the mirror while swearing profusely.

Yes, well, I'm not surprised the Throgmorton Amateur Dramatic Society threw me out. Anyway, Bevs Hill Cop, starring mah main man Eddie Murphy, is a four part shoot-the-sucker-any-way-you-can flick.

Luckily for those with disc drives, the disc version lets you play any of the sections individually or the whole game at one sitting, so even if you can't finish it, at least you get to see what's further on.

First section is strictly *Robocop* territory. Hoods in a warehouse are loading crates onto a van, and you have to blast your way through, ducking and dodging the returning fire. Unfortunately, unlike Robocop you don't have steel skin so you can expect to lose a few lives trying. Guys chuck dynamite, roll mines and come running at you like they want to feel their chest full of lead. Oblige them and keep moving. Graphics are pretty tasty, but the scrolling is a bit on the slow side.

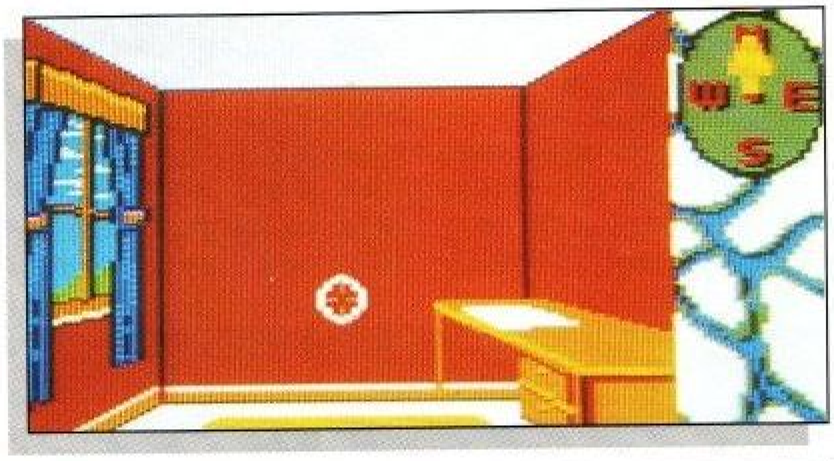
On you go into *Chase HQ* territory and part two. Chase three vans up a road in your wheels, blasting away and avoiding the crates they throw out of the back. This level is distinctly pedestrian, and unlike other versions there aren't any other cars on the road. It may be slow but at least it doesn't take too long to complete. Now you're at the headquarters of the Boss, and you've got to get inside. The trouble is you're outside in the very large gardens (complete with maze), and there's over 30 hired guns waiting to send you to the city morgue.

Movement is in four directions (ie no diagonals), but shooting is thankfully in eight. The scrolling is terrible, but the graphics are nice and large, and the bodies fall over in a pleasant manner. It is hard though, 'cos death lurks round every privet.

The final confrontation takes place inside the headquarters of Mr Big, with you searching out hostages and the man himself. Perspective is 3-D as you race around the different levels, charging into rooms. When a gunman appears on screen you stop moving and have to target a crosshair on him and open fire quite quickly to avoid sudden bloodloss.

BH Cop is a nice package of four games in one, with none of them being outstanding, but they gel together coherently, provide a varied arcade challenge, and even the title music is quite passable.

Mark Ulyatt



ROUND-UP

NAME	Beverly Hills Cop		
SUPPLIER	Tynesoft	PRICE	Disc £14.99 Cassette £9.99
79%	70%	73%	TNT
GRAFFIX	SONIX	PLAYABILITY	VERDICT

X-Out

Aliens have taken over the oceans of the world and you have been chosen to blast them out with a selection of hardware.

They came, they saw and they coveted. Why anyone would wish to live in our sea amongst the pollution and dying fish is frankly beyond me, but they did. Most people would be more than happy to let them populate the seabed, dodging the drums of toxic waste. However, the government is none too keen on non tax-paying residents, so in you go with the latest military hardware to greet those aliens with your firepower.

They must have known what their new neighbours were like because they came prepared.

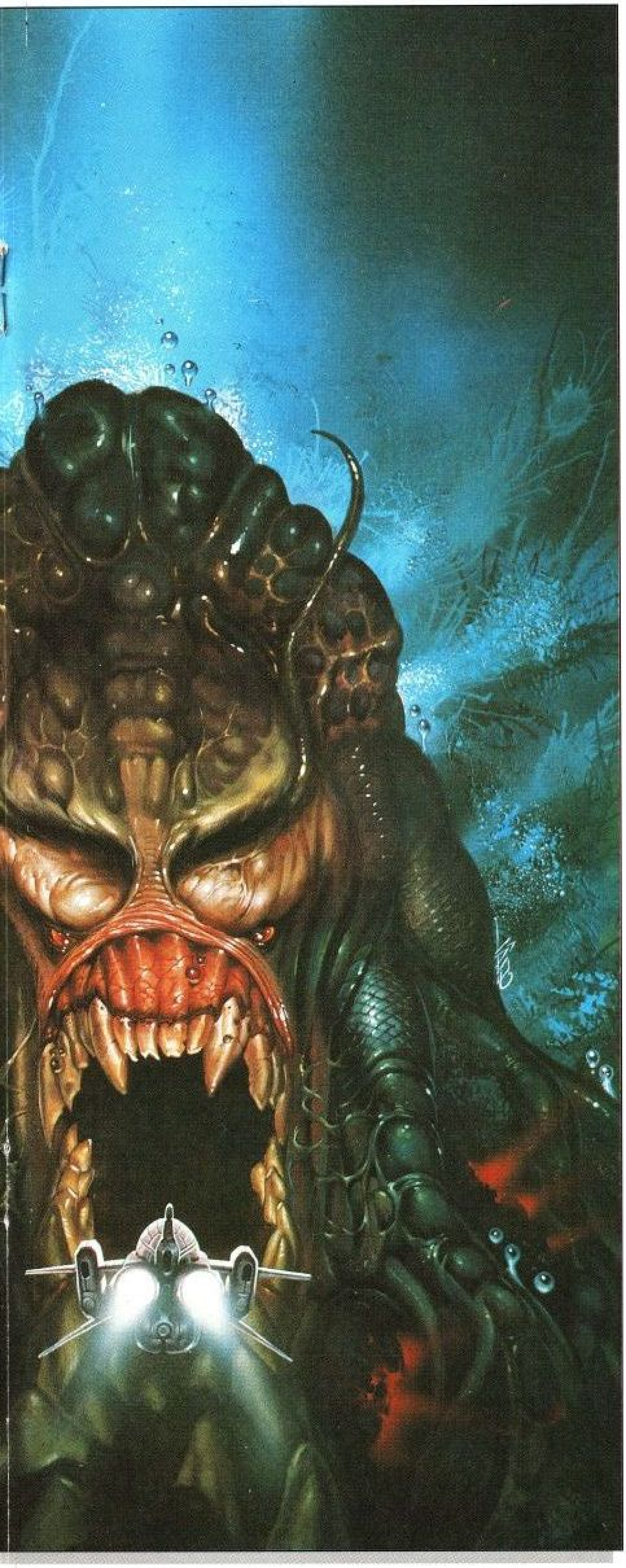
You start with a fistful of credits in a shop containing a bewildering amount of hardware. At first most of the hardware is beyond your purchasing power but as levels pass you become increasingly rich. The disadvantage to building up a near indestructible ship is its cost and the loss of investment caused by running into the underwater version of a brick wall. There are four types of ship to choose from, each increasingly expensive. The more costly the ship the more hardware it can carry. For straight laser blasting power the choice is staggering. Three strengths of bullet come in three varieties: single, double and the awesome triple shot.

Having placed your chosen ship in the design grid and added some fire power you go for the extras. For explosive power you can't beat a good missile. They come in three strengths but for the connoisseur there is the bouncing bomb which gives a severe headache to all it encounters as it merrily bounces along the edges of the scenery. Now we reach the specialised hardware. Three hold-down-the-fire-button-and-watch-those-suckers-fry type weapons are available, ranging from the expanding force field to the ever popular ball of flame. The last item in this column is the smart bomb. Unleash this weapon and a rotating ball meanders out into the centre of the screen before doing a *Last Starfighter* impression (if you don't know what I mean you rent the vid). For the player with other things on his mind there are drones. Basically a drone is a portable cannon which stays where placed and keeps on blasting until it is taken out or collected. To complement the drones there is a drone collector (they are quite expensive). Next comes a couple of enhancers. The laser upgrade will significantly increase the blasting power of your satellites (more of which later) and the shield will give you precious seconds of invulnerability when activated. The final extra comes in eight varieties and proves to be an invaluable addition to your craft, the satellite. These helpful devices emit their own stream of death as well as guarding your ship from hostile fire. Seven of the satellites follow a fixed path around your ship depending on the satellite bought, but the eighth seeks out the greatest threat and gives it a laser sandwich.

With ships designed and credits spent you are ready for the first level. Come out blasting because these guys give you no quarter. You find yourself entering the watery depths amongst many a rock formation and wreck. Against this background the aliens swarm. At first it is just a few small attack craft and the odd gun emplacement but soon all that extra hardware you purchased at the shop begins to sweat. Not all bullets can be traced to their source if you blindly scroll horizontally across the screen. To get into these nooks and crannies you need to move vertically and the screen will move with you. At very few







places can you display the entire vertical height of the scenery on the screen. If you spend too much time on the ocean floor you may find yourself surprised by the large craft which deposit their cargo of bombs upon your head but if you constantly skim the surface you will soon find the ocean floor bombardment gets too hot to handle.

Just when you start to get cocky, something large and nasty greets you. Riding upon the back of a giant metallic snake comes one of the aliens. The scrolling stops and you blast for your life. Taking out the snake is only half your problem as the rider gets very upset. After a few more attack waves the end-level monster appears. The mammoth beastie looks like something you find in the bottom drawer of your fridge. Its skin no longer exists and all you see is a collection of bone and muscle. Shoot off a few appendages and the head moves in for the kill.

After a quick visit to the shop to build a new super ship using your new found credits (converted from your score and the level bonus) you hit level two. This level follows a similar thread to level one with the exception of the rotating snakes. These are indestructible and only some clever manoeuvring will see you safely past. For the halfway monster you battle a giant sub which comes at you all guns blazing and at the end of the level you find a huge robot. While you blast at its digits, alien death squads bombard you from above.

Level three sees the advent of the worms. These tubular monstrosities follow in front of your craft leaving a destructible but deadly trail behind them. The only way to destroy a worm is to lead it into a solid object. At the end of this level you find the scorpion. This deadly beast fires lasers to protect its vulnerable body whilst bombarding you with fragments of its tail. Killing this beast is not the end of the level as its grieving tail detaches and attacks.

Around level five the landscape changes as you penetrate the ocean depths. This crystalline landscape sees many a familiar creature in an unfamiliar guise. Once friendly sea horses wield laser cannons and the octopuses let rip with flame cannons. If you survive this bizarre menagerie to reach the final volcanic levels watch out for the debris hurled from the sea bed.

The final confrontation is between you and a giant machine. From this device the aliens launch themselves into the fray. Blasting the aliens is not your main objective but let them past your lasers and they will be more than happy to hasten your demise. This is a great shoot-em-up with many an alien encountered. For sheer blastability you will have to look hard and long to beat this game.

Adrian Pumphrey

ROUND-UP			
NAME	X-Out		
SUPPLIER	Rainbow Arts	PRICE	Disc £14.99 Cassette £9.99
80%	70%	93%	
GRAFFIX	SONIX	PLAYABILITY	VERDICT

Spherical

A fascinating puzzle of magic spells and rolling balls. Create a path to get your sphere to the next level against ever higher odds.

Once upon a time, a long, long time ago, the world was beset by a terrible evil which smouldered in a hidden valley, growing until it threatened the earth with an eternity of darkness and which would have succeeded had it not been for the selfless and heroic actions of two unlikely companions.

While dwarf and mankind shed each other's blood in senseless warfare, only Pulgram the elven warrior and Wuron, his dwarf magician friend, realised the raw terror which lurked behind the swamps of darkness in the land of Khorndal.



Using only their bare courage and the Starball, an extra-terrestrial legacy of an earlier battle against evil, our two heroes arrived footsore but fearless in Khorndal, ready to take the battle to the source of the evil – the wakening dragon Mirgal.

Did they make it? Did they slay the beast in time to save us mere mortals? I guess the very fact that I am here writing about their epic adventure proves that they did. And where do you come in? Well, you lucky blighters get the chance to re-enact Wuron's journey through the ante-rooms of Mirgal's castle and fight for survival in the room of the Dragon.

Spherical is the name of the game and a pretty daunting one it is too. Armed with the power to conjure stone blocks into thin air, your task is to set a path which will allow the Starball to reach the entrance portal to the next chamber. This may sound simple enough, and on the earlier stages it is. But from here on in, the task requires some rapid thinking and a fair amount of strategy to stop the Starball getting stuck behind the lighter coloured, unmoveable blocks. Your best bet is to work out which route the Starball should take and then trap it in a secure position between two of your own magic blocks. This releases you to pick up the various gems and magic spells scattered around the chamber, before returning to path-building.

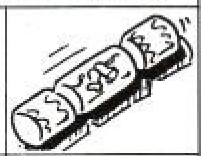


If you should get the Starball stuck however, there are four time doors which you can use to bring you back to the start of the level and try again. There are also a fair amount of different spells you can pick up to boost your energy and increase your chances of survival.

Although the CPC version lacks some of the gadgetry included in the larger formats of the game, Spherical is a real gem. Its combination of strategy and skill throws down the gauntlet to the boldest of gamesters and will keep you coming back again and again to find the evil dragon. There is not a lot to listen to, to be fair, but the graffix more than compensate and while you are concentrating on steering the Starball, you won't really notice.

So, Mirgal has thrown down the challenge. You have twenty seconds at the start of each level to secure the Starball, and remember, our fate depends upon the success of the mission. Fail at your peril; the stormclouds are gathering in the west, dark rumour is spreading on the wind. The evil awakens once more.

Chris Knight

ROUND-UP			
NAME	Spherical		
SUPPLIER	Rainbow Arts	PRICE	Disc £14.99 Cassette £9.99
78%	57%	85%	
GRAFFIX	SONIX	PLAYABILITY	VERDICT



Rock 'n Roll

Marble madness revisited. Try not to rock the boat as you roll your ball round the maze.

When a game proclaiming ten great rock and roll tracks comes out on the CPC, you tend to find a pinch of salt in the cassette box as well. Great rock and roll tracks? On a CPC? The CPC is renowned for many things, but music isn't one of them.

Still, the tunes are reasonable, if a little monotonous. After a couple of games all but the stone deaf will beg for sound effects instead.

So what's the game about then? We aren't sure to be honest. The instructions cover every language including a Germanic dialect of English, but they don't actually say what the object of the game is. Maybe it's an Agatha Christie mystery – you only find out what it's all about right at the end. Maybe the programmers don't know what its about.



Anyway, it appears that you have to defuse bombs on each level, and there are 12 whopping great levels to roll through. You are a ball. Rainbow Arts obviously have a lot of programming routines for balls. You wander around, with the view from overhead, in a game that combines *Marble Madness, Titan* and *Bombuzal.*

Around the maze-like area, various obstructions seek to hinder your way. Walls of belching fire, intermittently materialising walls, plain and ordinary walls, coloured locks (red, blue, green, yellow) and coloured keys, shopping centres with loads of power ups, ramps, collapsing pathways, sheets of slippery ice, acid baths and energy barriers all try to make your life harder and shorter.

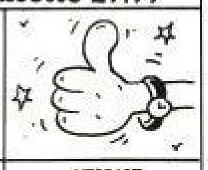
To help navigate some of these hazards the shopping centre will sell you a number of useful items. Collapsed pathways can be rebuilt, new platforms can be constructed over crevasses, rings let you continue on the last level played instead of returning to the start, parachutes will save your ball from unpleasant falls. Armour plating can be added, for a brief period of time, rendering your ball impervious to attack and energy loss, and up to four speed ups can make your ball zoom around the maze at a crazy and usually doom laden pace.

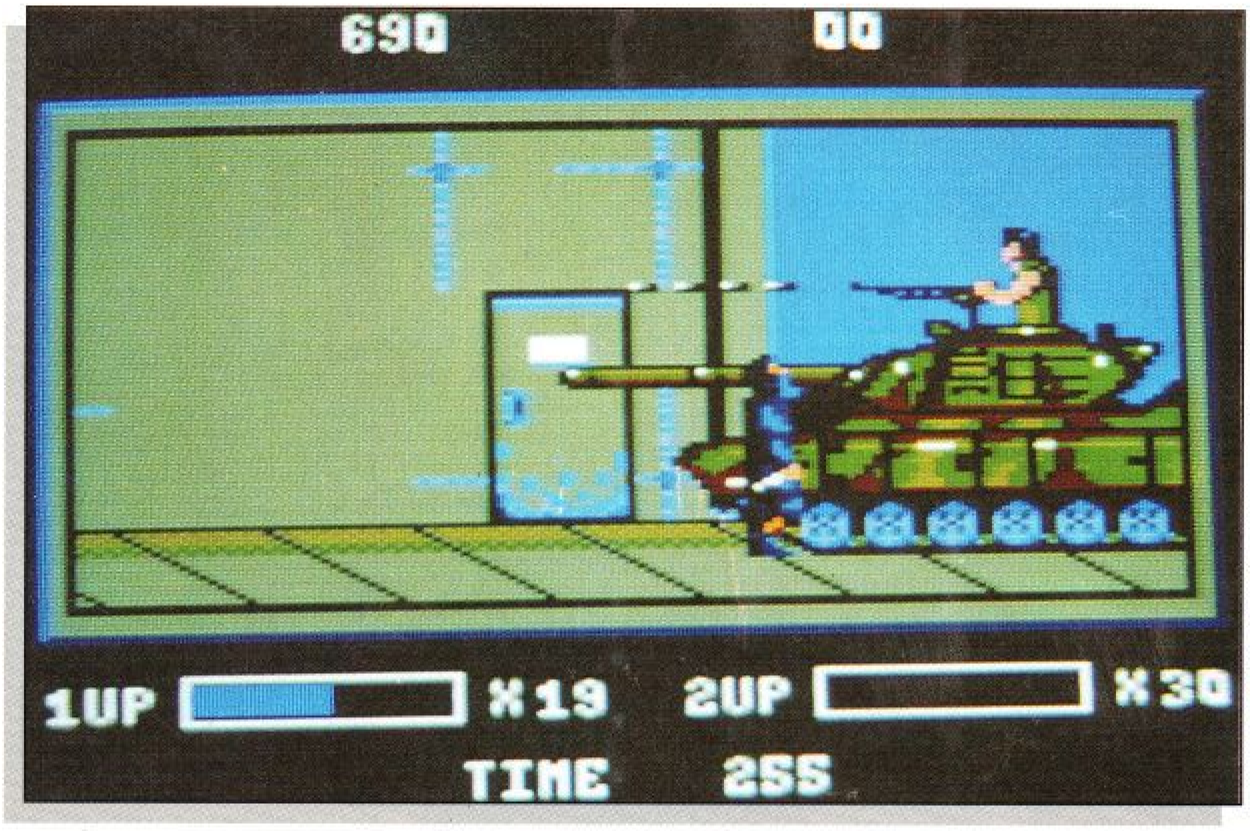
While using the tubes and teleports to jump to and fro in the maze, the majority of the work is done by slogging around on foot, collecting objects and opening doors. When you get stuck you can call up a progressively detailed map, if you have collected one or more eyeballs on your journey that is.

Rock 'n Roll is a strange puzzle game and no mistake, but it borrows heavily from numerous other games. The graphics are colourful, and the scrolling and control are good enough to make the game playable. It isn't going to appeal to everyone, but for those with enough patience and a love of maze and puzzle games, discovering the point of the game will be a challenge.

Mark Ulyatt

ROUND-UP

NAME	Rock 'n Roll		
SUPPLIER	Rainbow Arts	PRICE	Disc £14.99 Cassette £9.99
78%	70%	74%	
GRAFFIX	SONIX	PLAYABILITY	VERDICT

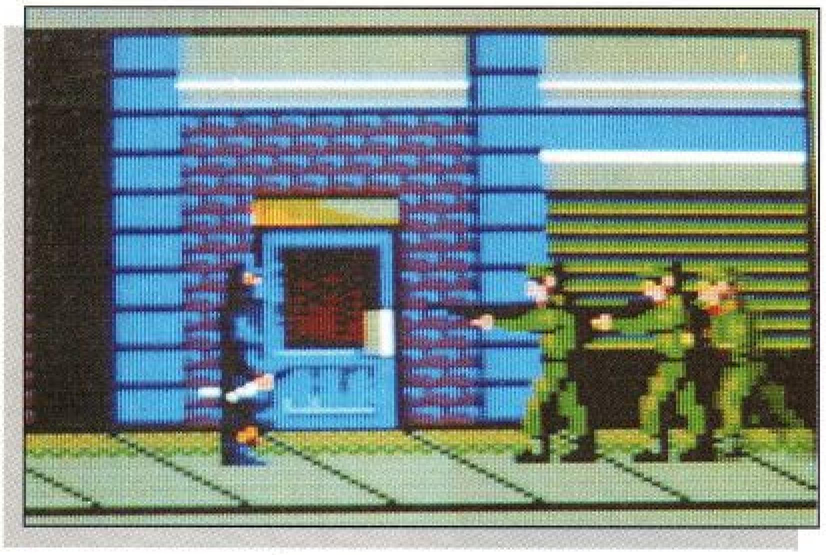


Ninja Warriors

Another Ninja slaying session which has you lobbing shurikens at American GI lookalikes. Sounds familiar? It is.

"In 1993 to be an individual is to be er . . . DEAD! The totally evil master/geek (sorry . . . politician) Bangler has serious power going down in town. All the Fuzz and Squaddies are his but so is the Underworld. You are MULK, pal . . . and as THE totally wicked revolutionary (for 'THE' read 'ONLY') you are gonna build 2 assassination machines – the Ninja Warriors – and attempt to chill out this Bangler guy with knives, shurikens and some bad posse hip movement!" So run the sleeve notes to *Ninja Warriors*. Who writes this tosh? What it boils down to is that the script writers at Virgin have run out of ideas for plots for what is yet another Ninja fight game.

By now there must be almost as many, if not more of these stab-em-in-the goolies games as there are race games, and to be honest they're not getting any better. Ninja Warriors is a classic example of how games companies are exploiting what is claimed to be 'harmless' violence. It happens all the time in the arcades, but the coin-op games are generally full of action and intense fun. Ninja Warriors is packed with neither.



With the aid of a joystick or keyboard, you control your ninja and make him walk left to right across a scrolling corridor massacring everything that moves. The assailants look like American GIs, clad in green uniforms and armed with sharp blades. As they plod towards you some throw grenades, others fire rifles, or wait to get close enough and then stick the knife in.

It mentions nothing in the plot about your ninja's arthritis, yet he still seems to suffer severely and every movement is so slow and lethargic that he couldn't even run for a bus, let alone flee from the GIs that move at twice his speed. But, still if they get close enough you can prod them with your shiny dagger, or better still lob a throwing star at them from a distance.

Larger, more dangerous enemies pop up from time to time, including a hunchback and a sword lady and on the second level cardboard cut-outs of quadrapeds lunge towards your crippled ninja, causing him to lose more energy.

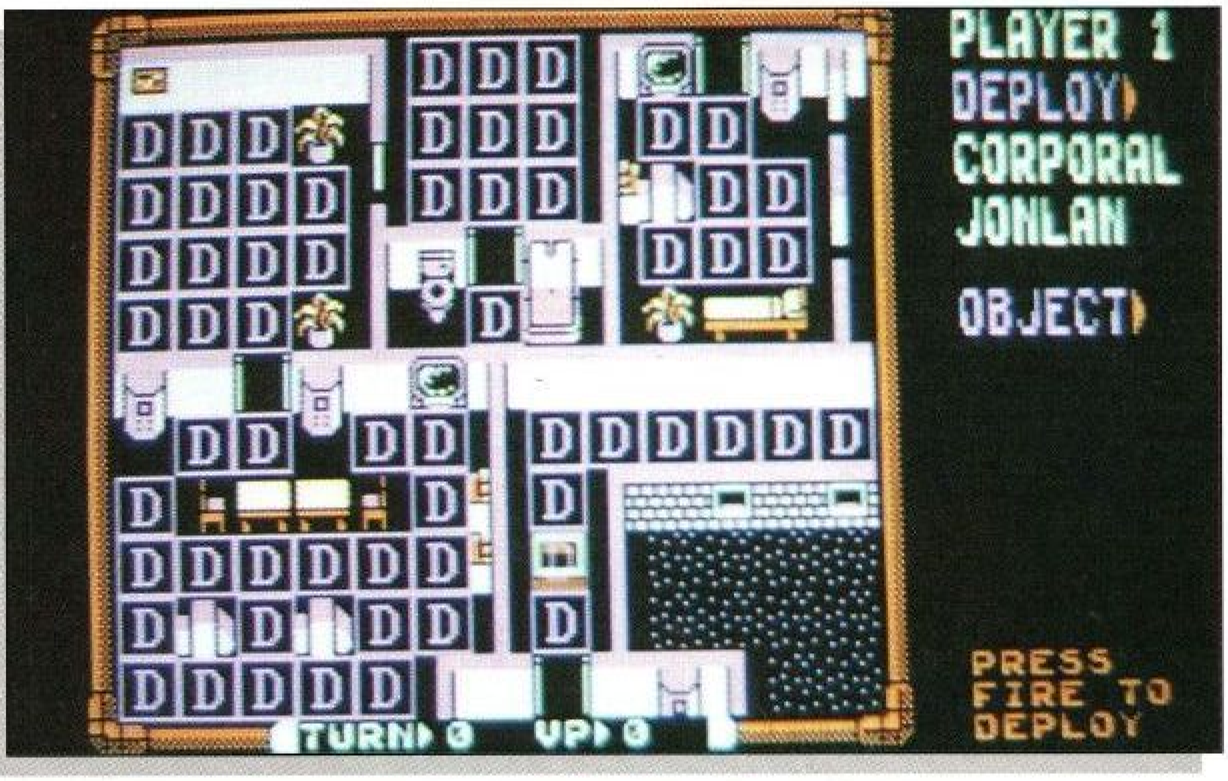
Five levels of dull scenery scroll past until you eventually reach the notorious hideout that is so often found in this type of game. Actually, the graphics are quite good but are so incredibly slow. As far as sound goes, don't count on it to liven up the action, 'cos it won't.

So what has Ninja Warriors got that the others ain't? Two player mode, that's what. Yes, you and a friend can endure the penalty for spending your money together. Two ninja fighters, one red (perhaps blood stained), one blue. Both begin as invincible flashing blobs that could be mistaken for disco lights. This flashing soon wears off and the action begins.

Ninja Warriors is uninspired, uninteresting, dull and boring.

Andrew Banner

ROUND-UP			
NAME	Ninja Warriors		
SUPPLIER	Virgin	PRICE	Disc £14.99 Cassette £9.99
67%	45%	31%	
GRAFFIX	SONIX	PLAYABILITY	VERDICT



Nothing beats the clean, crisp ozone smell of a discharging laser or the bemused smile on a security droid's metallic lips as you pound it with a dead branch just before it vaporises three foot of your intestinal tract. Welcome to the future, and war. Large armies are a thing of the past when a single trouper carries enough fire power to level cities. When these guys clash, the fireworks fly.

As the leader of a trigger happy squad it is your task to arm and equip the troops. Using the credits allocated for the mission, you buy a mixture of armour and weaponry. Up to four points

Laser Squad

Control a gang of weapon laden troopers in this game of strategy and extreme violence.



of armour can be added to each trooper but doing so will inevitably leave you short of cash. A range of weaponry is available, everything from the humble pistol to the all singing all dancing laser assault cannon (mega death blaster to its friends) plus the ever popular grenade and a smattering of ammunition.

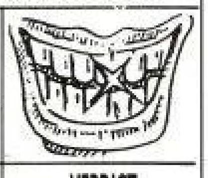
Once armed (and extremely dangerous), you move to an overview of the war zone. Here you place your troops in the drop zones. Once down the action begins. Each trooper has a set number of action points. These vary from soldier to soldier depending upon the strength of the character, equipment carried and type of being. Many other characteristics, such as stamina and morale, also vary with the exception of droids who maintain a cheerful outlook upon life no matter what the odds. Movement and other actions such as changing or loading weapons, combat and generally interacting with the environment all cost action points.

To select a squaddie you place the cursor over the character and hit the fire button. Once selected you can run through the options for that character. For movement, a compass arrangement in the top right of the screen shows the direction the character is facing and the direction he is about to move in. To examine the general surroundings, a map of the battle zone can be accessed which shows the location of your and any sighted enemy troops.

If an enemy trooper is sighted during the opposition's turn you have a chance at reaction fire if the sighting character has enough action points left over from the previous round. When in combat, the screen changes to show all solid objects with troops represented as coloured circles. To unload your weapon at an enemy you move the cross hair cursor over the target and choose your mode of fire. Three type of fire are possible if your weapon can handle it. Snap and aim cost a different number of action points but aim is more reliable and automatic fire requires you to mark the spread of your bullets with the cursor. One nice touch are the grenades which can be set on timers and hidden in such innocuous objects as plant pots.

This one or two player strategy combat with five scenarios ensures some serious thought and some serious blasting.

Adrian Pumphrey

ROUND-UP			
NAME	Laser Squad		
SUPPLIER	Blade Software	PRICE	Disc £14.99 Cassette £9.99
60%	37%	82%	
GRAFFIX	SONIX	PLAYABILITY	VERDICT

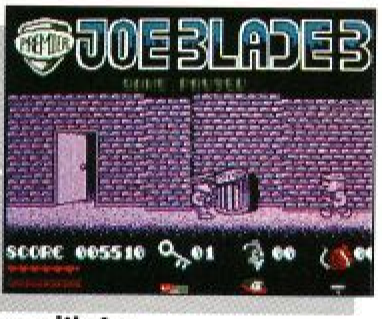
Budget Basement

Another installment of our guide to what's cool and what's not in the world of budget games.

JOE BLADE 3

Who do you call when six of the world's best-loved celebrities have been kidnapped by evil master criminal Crax Bloodfinger, and the ransom has been set at an impossible $100billion dollars? Why, Joe Blade of course.

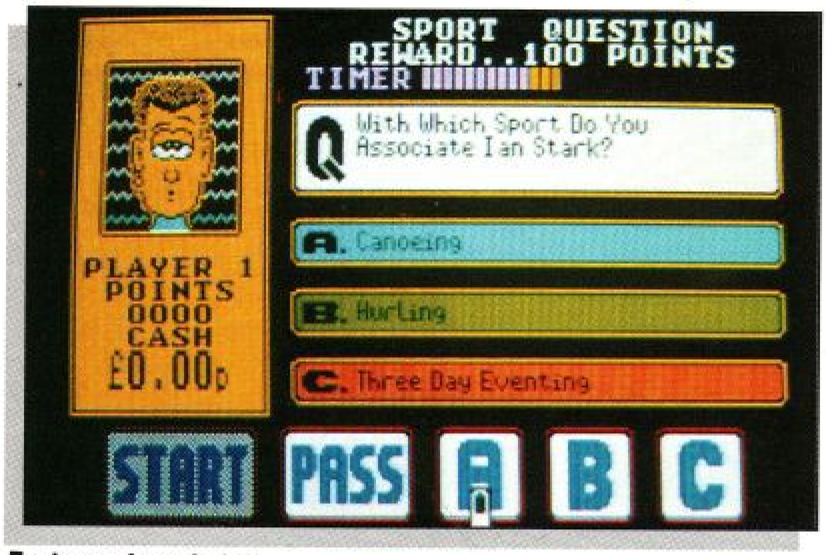
As with Joe's first two outings, the storyline is full of character and the game – despite being a little colourless – is extremely playable. And if rescuing hostages seems to be getting a little overplayed, there are a couple of neat little sub-games to keep you on the straight and narrow.



Fun with Joe

PUB TRIVIA

Budding know-it-alls will love this one. Pick your own contestant, work your way up the house of cards and start making a mint on the money maze. There are five separate categories and plenty of extra questions on the back of the tape if you start getting bored with the originals. The only criticism I would make is that you have to answer an awful lot of questions to get your fortune stack off the ground.



Test your knowledge

BLADE WARRIOR

There is certainly no shortage of action in *Blade Warrior*. In fact, there may initially be just a little too much to handle, what with finding the scroll of the dead, avoiding tridents and sprites and leaping the chasms to hell. The sampled speech is interesting but do not let it distract you so that you lose concentration, because death is lurking around every corner. Those little trips up to the graveyard can get a little frustrating!



Blade Action

WIZARD WILLY

Another goody from the Cartoon Time Collectors' series aimed at the young at heart. *Wizard Willy* is certainly colourful, quite fun to play, but definitely not for the seasoned zappers. The end-of-level skulls can be tricky, so use your magic well on your quest to collect the magic eyes. But do not despair, there are always enough extra spells lying around to help you rescue darling Fifi the Fairy from the Emperor's fortress.


Jolly Wizard

ALIEN SYNDROME

Those RAD boys and girls have come up with a pretty impressive coin-op conversion in *Alien Syndrome*. The graffix are excellent, the sound gives good vibrations and, yes, it is addictive. There are two parts to each level, the first being a race against time to rescue your comrades – watch out for those killer cashew nuts – and the second is a face-to-face bash with a big, bad alien. Choose your weapon carefully on leaving part one as you have to keep it throughout the second part, and don't lose your patience – this one's a multi-loader.

Chris Knight



Getting that alien feeling

ROUND-UP

NAME	SUPPLIER	PRICE	RATING
Joe Blade III	Players Premier	£1.99	62%
Pub Trivia	Code Masters	£2.99	57%
Blade Warrior	Code Masters	£2.99	68%
Wizard Willy	Cartoon Time	£2.99	72%
Alien Syndrome	RAD	£2.99	85%

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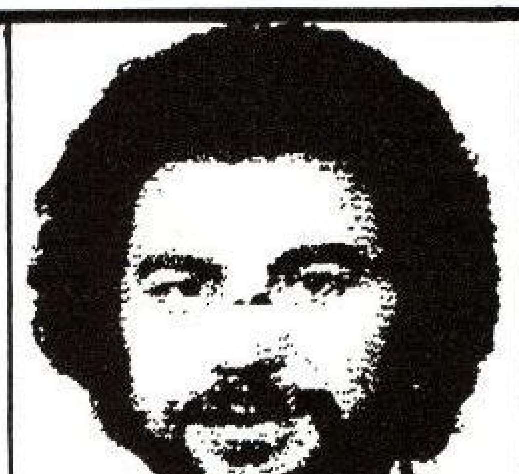
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That's life

More machine code madness as Auntie John Kennedy demonstrates the secrets of life itself. Next month it's back to the serious stuff.



Life must be one of the great computer programming games of all time. It was invented by the mathematician John Conway in the 1970s and is a program which, by means of a few simple rules, creates patterns of immense complexity, modelling life itself.

Life simulates a colony of cells, showing how they are born, grow and die in an idealized environment.

The rules which govern the game are as follows: (1) To survive to the next time cycle, each cell must have either two or three neighbours. Less than two and it dies from loneliness, greater than three and it starves. (2) If 3 cells get together, a new cell is born.

Although these rules may seem trivial, they were decided upon by Conway after studies of the many possibilities. They are not by any stretch of the imagination an accurate representation of a cell culture, only a means to explore such computer generated cellular automata. In other words, it's not realistic, but it looks good.

For your edification and delight, we present you with not one, but two listings for Life. The first is written in Locomotive Basic, mainly to allow you to get a general feel for the formulae involved. It creates a random colony and allows it to grow. Slowly.

The second listing is a specially written machine code masterpiece, operating many, many times faster. It is well worth the time and effort needed to type it in, but remember to save it before running, just in case you have made a mistake. Successive generations appear very quickly indeed, fast enough to watch the patterns grow and change without having to pop out for a cup of tea between frames. There is also an editor built in, so you can design your own cultures and watch them flourish or vanish.

Here are several common patterns that you can experiment with:

1. The Blob – boring, this one. Just sits and does nothing.
```
oo
oo
```
2. Spinner – it goes round, and round, and round . . .
```
ooo
```
3. Glider – crawls its way off the screen.
```
 o
  o
ooo
```
4. Honey Farm – this shape evolves into four beehives.
```
ooooooo
```

Instructions for machine code Life: When first run, the program is in editing mode. From here you can:

– move the cursor around the screen with the arrow keys
– add or remove cells with the control and copy keys
– start the cells generating with the G key (stop with Space)
– clear away all the cells with the C key
– create a random pattern with the R key
– return to Basic by pressing the Escape key.

Auntie John will be continuing his machine code tutorial in next month's issue. This month's effort is by way of a little light relief. Auntie sinned some what in the March tutorial in the listings. Line 20 in both 'Listing 1 – Excitement and really wild things' and 'Listing 2 – More excitement and really wild things' should read '20 READ X$', leaving off all the other gobbledegook.

```
1 REM ========================
2 REM =    Life by AJ   1990   =
3 REM ========================
4 REM
5 REM Remember to SAVE this
6 REM before running
7 REM
10 MEMORY &7FFF
20 add=&8000
30 READ a$
40 IF a$="stop" THEN CALL &8000
50 FOR b=1 TO LEN(a$) STEP 2
60 c=VAL("&"+MID$(a$,b,2))
70 POKE add,c
80 add=add+1
85 NEXT
90 GOTO 30
100 DATA 3E01CD0EBC210000
110 DATA 22AD8A21DD8222AF
120 DATA 8A011010CD38BCDD
130 DATA 21DD82FD21C5863E
140 DATA 32CD1EBBC482803E
150 DATA 34CD1EBBC489803E
160 DATA 3ECD1EBBC492803E
170 DATA 42CD1EBB205BCD04
180 DATA 81CD19BDCD19BDCD
190 DATA 0F81CD19BDCD19BD
200 DATA 3E00CD1EBBC49F80
210 DATA 3E02CD1EBBC4B880
220 DATA 3E01CD1EBBC4E280
230 DATA 3E08CD1EBBC4CE80
240 DATA 3E17CD1EBBC4F680
250 DATA 3E09CD1EBBC4FD80
260 DATA 188FCDF081CDBC81
270 DATA C9010101CD38BCC3
280 DATA 2681CD0F82CDBC81
290 DATA C93E01CD0EBCC92A
300 DATA AD8A7CFE00C82522
310 DATA AD8A2AAF8A012800
320 DATA 373FED4222AF8AC9
330 DATA 2AAD8A7CFE18C824
340 DATA 22AD8A2AAF8A012B
350 DATA 000922AF8AC92AAD
360 DATA 8A7DFE00C82D2D22
370 DATA AD8A2AAF8A2B22AF
380 DATA 8AC92AAD8A7DFE4E
390 DATA C82C2C22AD8A2AAF
400 DATA 8A2322AF8AC93E01
410 DATA 2AAF8A77C93E002A
420 DATA AFBA77C92AAD8ADD
430 DATA 21BD82CD2182C92A
440 DATA AD8AED5BAF8A1AFE
450 DATA 01CCE6811AFE00CC
460 DATA EB81CD2182C9DD21
470 DATA DD82FD21C586CDBC
480 DATA 81DD21DD82FD21C5
490 DATA 86CD60813E2FCD1E
500 DATA BBC0DD21C586FD21
510 DATA DD82CDBC81DD21C5
520 DATA 86FD21DD82CD6081
530 DATA 3E2FCD1EBBC018C6
540 DATA 01E803C5DDE5E101
550 DATA 2900373FED427E23
560 DATA 8623860126000986
570 DATA 2323860126000986
580 DATA 2386238647DD7E00
590 DATA FE01CCA281DD7E00
600 DATA FE00CCB181DD23FD
610 DATA 23C10B78B1FE0020
620 DATA C2C978FE02280FFE
630 DATA 03280B3E00FD7700
640 DATA C978FE0320F53E01
650 DATA FD7700C906000E00
660 DATA 6960DD7E00DDE5FE
670 DATA 00C4E681CCEB81C5
680 DATA CD2182C1DDE1DD23
690 DATA 0C0C79FE5020E104
700 DATA 78FE1920D9C9DD21
710 DATA AD82C9DD21CD82C9
720 DATA 11DD8201E803ED5F
730 DATA E610FE1028053E00
740 DATA 1218033E0112130B
750 DATA 78B1FE0020E8C911
760 DATA DD8201E8033E0012
770 DATA 130B78B1FE0020F5
780 DATA C9DDE55D7CCB2721
790 DATA 7B8206004F097E4F
800 DATA 237E476B260009D1
810 DATA 01FF071A7723131A
820 DATA 7713091A7723131A
830 DATA 7713091A7723131A
840 DATA 7713091A7723131A
850 DATA 7713091A7723131A
860 DATA 7713091A7723131A
870 DATA 7713091A7723131A
880 DATA 7713091A7723131A
890 DATA 7713C900C050C0A0
900 DATA C0F0C040C190C1E0
910 DATA C130C280C2D0C220
920 DATA C370C3C0C310C460
930 DATA C4B0C400C550C5A0
940 DATA C5F0C540C690C6E0
950 DATA C630C780C7010803
960 DATA 0C070E070E070E03
970 DATA 0C01080000F0F0F0
980 DATA F0F0F0F0F0F0F0F0
990 DATA F0F0F0F0F0000000
1000 DATA stop
```

```
10 REM The Game of Life
20 REM This version $ 1990 John Kennedy
30 REM for Amstrad Computer User
40 REM
50 MODE 1
60 PRINT "Life"
70 WINDOW £0,10,30,3,22
80 DEFINT a-z
90 '
100 DIM c(21,21),d(21,21)
110 FOR a=1 TO 80:d(INT(RND*20)+1,INT(RND*20)+1)=1:NEXT a
120 '
130 GOSUB 170
140 GOSUB 250
150 GOTO 130
160 '
170 REM Draw Colony
180 LOCATE 1,1
190 FOR y=1 TO 20:FOR x=1 TO 20
200 IF d(x,y)=1 THEN PRINT "O"; ELSE PRINT " ";
210 c(x,y)=d(x,y)
220 NEXT:PRINT:NEXT
230 RETURN
240 '
250 REM Update Colony
260 FOR x=1 TO 20:FOR y=1 TO 20
270 n=0
280 FOR p=x-1 TO x+1:FOR q=y-1 TO y+1
290 n=n+c(p,q)
300 NEXT:NEXT
310 b=0
320 IF c(x,y)=0 AND n=3 THEN b=1
330 IF c(x,y)=1 AND (n=3 OR n=4) THEN b=1
340 d(x,y)=b
350 NEXT:BORDER 20-x:NEXT
360 RETURN
```

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Fractal footnote

Dean Cracknell has written a coda to his three-part fractal feature to aid those who had problems getting it to work.

Ever since I first typed-in a program from a listing published in ACU many, many years ago, I have disliked multipart listings, mainly because after hours of typing, you have to wait until the next issue before you can run the fruits of your labours, and then only after several more hours typing.

To make matters worse in my fractals series the glueware to bring the two parts together was missed out. Here is the missing glueware:

Use the following program to combine the two halves of machine code, "FRA-A.BIN" and "FRA-B.Bin" to produce "FRA-CODE.BIN":

```
1000 MEMORY &9OFF
1010 LOAD "fra-a.bin",&9100
1020 LOAD "fra-b.bin",&9767
1030 SAVE "fra-code-.bin",B,&9100,&C00
1040 PRINT "All code saved"
1050 END
```

To merge the two BASIC programs, "part-1" and "part-2", insert the disc with both halves on it in the drive and type the following commands from the keyboard:

```
NEW
LOAD "part-1.bas"
MERGE "part-2.bas"
SAVE "fractal.bas"
```

If you have all the code from both articles, and have successfully merged everything together using the listings above, your Landscape Generator program will now run as I had intended it to.

The programs were published with their proof-codes, for use with the proof reader program that was reprinted on page 58 of the February 1990 issue of ACU.

To further aid the typist, line checksums were added to each dataline of the machine code loaders, these act as a double check as mistakes are easily missed when reading lists of hex-numbers.

So if the proof-reader codes agree with each line that you have typed, but running the program produces a message like Keith Jones's "ERROR in Final C/SUM" from the letters page Feb 90, even though the staff of ACU assure you that all the programs work correctly, what could have gone wrong and how do you fix it?

The only way to debug a program is to attack it logically, the approach is more or less the same each time, however the actual steps taken are determined by the particular line that contains the error. The message is printed in line 1150 if (and only if) 'CSUM' does not equal 'CCSUM'. There are three possible reasons for message to be printed: 'CSUM' is wrong; 'CCSUM' is wrong; or line 1150 is itself wrong. The proof reader says that line 1150 is correct. 'CCSUM' is read from the last line of the program (line 5050) and the proof reader says that is correct as well, so it must be 'CSUM' that is in error. One advantage with using Basic over compiled languages such as Pascal or C is that when the program stops with an error message, the program data is still in memory and can be inspected from the keyboard. This means that we can print the value of 'CSUM' that caused the error using:

```
PRINT HEX$ (csum)
```

The correct answer should be "4ABC". Line 2030 calculates this value by adding-up all the line checksums 'LSUM'. Each 'LSUM' is checked by both the proof-reader and the program itself, so they must also be correct, therefore the only possible cause for the error is that not all the 'LSUM' values have been added together, or to put it bluntly, some lines must be missing from the typed in program. To prove this, "PRINT (5050-Lnum)/10" from the keyboard, will tell you how many lines have skipped. If you are having a similar problem with the "FRA-B" program, then the final checksum should be &0F2A and the line count (lnum) should be 4790.

Another common error message displayed by the machine code loader programs is 'TYPE MISMATCH IN 1100'. None of the readers who reported this error said they used the proof reader, and as I cannot think of a way that this message could be printed by a program that had been checked, I must assume that it was not.

Line 1100 is a multi-statement line, but the only statement that will give this message is the VAL() statement. For an indication of what the data was that has caused the error, print the string 'a$'. What you should see is a line of characters that are made from the numbers 0-9 and the first 6 letters of the alphabet, any other characters in this line are wrong and should be corrected in the DATA line, whose program line number can be determined by printing the line counter variable LNUM.

However, if what you see is the group of four characters (i.e. ####) from the last line of the program, then these should match the group of four characters in line 1080. If they do not, then change them so that they do. If they do, then check that line 1080 is syntactically correct.

All of the practical causes for this error that I have listed here would have been caught by using the proof-reader program.

As you can see from the two examples above the proof-reader is an invaluable debug tool if the program that you are typing in has the proof-codes printed along side it, even when all the proof-codes are correct and the program still does not run.

However, even this is not totally infallible, if you look at line 3590 of "RRA A,BAS" (Dec '89), whose proof-code is [48], you will see that a small exoskeletal invertibrate creature has crawled under the typeface and preventing some of the ink from being deposited on the paper, this has caused the [48] to look like [18] – entomologists call these creatures insects, programmers call them bugs.

Finally, I have been asked how you load the landscapes saved by the program with all the correct colours. Well the simplest way is to copy Subroutine 2 from the main BASIC program listing (Lines 1620-1660), which sets the ink colours, and then load the screen image file from disc or tape using:

```
MODE 0
LOAD "!s0000'.scr",$C000
```

With a small amount of ingenuity you should be able to put together a short program that will display a series of frames in sequence, much like a slide viewer.

YETCHA

BY PAUL WILSON

The name is new but within this listing lies the classic dice-throwing game of Yahtzee. This conversion contains all the excitement of the original game and can be played by up to six people. Full play instructions are given at the beginning of the game, so pay attention and get rolling.

```
10 REM ****** INITIALISE ******
20 MODE 1:INK 0,1:INK 1,0:INK 2,6:INK 3,15:DIM card$(15),dice(5),dx(5),dy(5),dic
e$(5),have(5):FOR x=1 TO 15:READ card$(x):NEXT
30 DATA One,Two,Three,Four,Five,Six,Bonus,Three Of A Kind,Four Of A Kind,Full Ho
use,Low Straight,High Straight,YETCHA,Free,Grand Total
40 SYMBOL AFTER 200:'***** Dice
50 FOR a=201 TO 206:READ b,c,d,e,f,g,h,i:SYMBOL a,b,c,d,e,f,g,h,i:NEXT
60 DATA 0,0,0,24,24,0,0,0,0,6,6,0,0,96,96,0,3,3,0,24,24,0,192,192,0,102,102,0,0,
102,102,0,195,195,0,24,24,0,195,195,102,102,0,102,102,0,102,102
70 FOR x=1 TO 5:READ dx(x),dy(x):NEXT
80 DATA 5,5,11,5,3,9,8,9,13,9
90 go=0:ENT 1,15,10,5:ENV 1,10,-2,10:ENV 2,1,1,5:ENV 3,14,-1,5
100 REM ****** PLAY THE GAME ******
110 GOSUB 1590
120 FOR cu=1 TO men:FOR x=1 TO 15:player(cu,x,2)=-1:NEXT:NEXT
130 GOSUB 270:REM ** set up game screen
140 FOR turn=1 TO men*13:'main loop
150 GOSUB 380:REM ** clear score card
160 go=go+1:IF go=men+1 THEN go=1
170 GOSUB 1550:REM next player
180 GOSUB 390
190 GOSUB 420:REM ** roll dice
200 GOSUB 660:REM ** enter a score
210 IF player(go,7,2)=30 THEN GOTO 230
220 GOSUB 1420:REM ** check for bonus
230 GOSUB 1490:REM ** update total
240 NEXT
250 GOTO 1850
260 REM ****** GAME SCREEN ******
270 WINDOW #1,1,25,1,20:PAPER #1,3:CLS #1:WINDOW #2,26,40,1,13:PAPER #2,3:CLS #2
:WINDOW #3,26,40,14,25:PAPER #3,3:CLS #3:WINDOW #4,1,25,21,25:PAPER #4,3:CLS #4:
BORDER 0:PLOT 400,0:DRAW 400,400,2:PLOT 400,188:DRAW 640,188
280 LOCATE #1,11,2:PEN #1,1:PRINT #1,"YETCHA":LOCATE #2,2,2:PEN #2,1:PRINT #2,"T
HROW  SCREEN":LOCATE #3,3,2:PRINT #3,"SAVE SCREEN"
290 FOR x=1 TO 15:IF x=7 OR x=15 THEN PEN #1,3 ELSE PEN #1,1
300 LOCATE #1,1,x+4:PRINT #1,x:NEXT:FOR x=112 TO 336 STEP 16:PLOT 12,x:DRAW 368,
x:NEXT:PLOT 12,96:DRAW 12,336:PLOT 12,94:DRAW 368,94:FOR x=1 TO 15:LOCATE #1,5,x
+4:PEN #1,1:PRINT #1,card$(x):NEXT:PLOT 370,94:DRAW 370,336:PLOT 310,9
4:DRAW 310,336
310 FOR x=1 TO 10:READ a,b,c,d,e,f,g,h,i,j:PLOT a,b:DRAW c,d:DRAW e,f:DRAW g,h:D
RAW i,j:NEXT
320 DATA 454,312,488,312,488,344,454,344,454,312,550,312,584,312,584,344,550,344
,550,312,422,248,456,248,456,280,422,280,422,248,502,248,536,248,536,280,502,280
,502,248,582,248,616,248,616,280,582,280,582,248
330 DATA 454,104,488,104,488,136,454,136,454,104,550,104,584,104,584,136,550,136
,550,104,422,40,456,40,456,72,422,72,422,40,502,40,536,40,536,72,502,72,502,40,5
82,40,616,40,616,72,582,72,582,40
340 FOR x=1 TO 5:READ a,b:LOCATE #2,a,b:PRINT #2,x;:LOCATE #3,a,b:PRINT #3,x;:NE
XT:LOCATE #2,2,13:PRINT #2,"PLAYER-"
350 DATA 4,7,10,7,2,11,7,11,12,11
360 RETURN
370 REM ***** REPAIR SCORE CARD *****
380 FOR x=5 TO 19:LOCATE #1,21,x:PRINT #1,"   ":SOUND 1,x*5,5:NEXT
390 FOR x=112 TO 336 STEP 16:PLOT 310,x:DRAW 370,x:NEXT
400 RETURN
410 REM ***** ROLL DICE *****
420 CLS#4:PEN #4,0:PEN #1,1:PRINT #4:PRINT #4,"Press Space To Roll Dice":WHILE I
NKEY$<>"":WEND:WHILE INKEY$<>" ":WEND:CLS #4:FOR throw=1 TO 3:FOR x=1 TO 5:LOCAT
E #2,dx(x),dy(x):PRINT #2," ":NEXT:PEN #4,0:PRINT #4:PRINT #4," Press

Enter To Stop"
430 FOR x=1 TO 5:IF x=have(x)THEN LOCATE #2,dx(x),dy(x):PRINT #2,dice$(x):SOUND
1,15,10,7:GOTO 450
440 WHILE INKEY$<>CHR$(13):a=INT(RND*6)+201:SOUND 1,a+INT(RND*50),2:LOCATE #2,dx
(x),dy(x):PRINT #2,CHR$(a):dice$(x)=CHR$(a):FOR y=1 TO 50:NEXT:WEND:GOTO 460
450 LOCATE #3,dx(x),dy(x):PRINT #3," ":have(x)=0:FOR d=1 TO 10:NEXT:CALL &BCA7
460 NEXT:GOSUB 480:NEXT:GOSUB 630:RETURN
470 REM ***** SAVE DICE *****
480 IF throw=3 THEN GOTO 610
490 FOR x=1 TO 5:had(x)=0:NEXT:PEN #4,0:CLS #4:PRINT #4:PRINT #4," How Many Do Y
ou Want To      Save This Time?":IF throw>1 THEN PEN #4,2:PRINT #4,"  (Remember
To Re-Save)"
500 a$=INKEY$:IF a$="" THEN 500
510 want=INSTR("012345",a$)-1
520 IF want<0 OR want>5 THEN GOTO 500
530 CLS #4:IF want=0 THEN RETURN
540 IF want=5 THEN throw=3:RETURN
550 PEN #4,0:PRINT #4:PRINT#4,"Enter Dice Using Numbers":PRINT #4,"        1 To
5"
560 FOR z=1 TO want
```

```
570 a$=INKEY$:IF a$="" THEN 570
580 got=INSTR("12345",a$):IF got<1 OR got>5 THEN GOTO 570
590 IF had(got)=-1 THEN 570 ELSE had(got)=-1
600 have(got)=got:LOCATE #2,dx(got),dy(got):PRINT #2," ":SOUND 1,50,15,5,0,1:LOC
ATE #3,dx(got),dy(got):PRINT #3,dice$(got):NEXT
610 CLS #4:RETURN
620 REM **** save all dice ****
630 FOR noise=100 TO 200 STEP 2:SOUND 1,noise,1,5:NEXT
640 FOR saved=1 TO 5:LOCATE #2,dx(saved),dy(saved):PRINT #2," ":LOCATE #3,dx(sav
ed),dy(saved):PRINT #3,dice$(saved):dice(saved)=ASC(dice$(saved))-200:NEXT:RETUR
N
650 REM **** ENTER A SCORE ****
660 score=0:PEN #4,2:CLS #4:PRINT #4," ";CHR$(94):PRINT #4:PEN #4,0:PRINT #4," U
se These Numbers To       Make An Entry";:INPUT #4,entry
670 IF entry<1 OR entry>14 THEN GOTO 660
680 IF entry=7 THEN GOTO 660
690 IF entry<>INT(entry) THEN GOTO 660
700 IF entry=player(go,entry,1) THEN GOTO 660
710 player(go,entry,3)=entry:player(go,entry,1)=player(go,entry,3)
720 IF entry<=6 THEN GOTO 810
730 IF entry=8 THEN GOTO 850
740 IF entry=9 THEN GOTO 910
750 IF entry=10 THEN GOTO 970
760 IF entry=11 THEN GOTO 1100
770 IF entry=12 THEN GOTO 1100
780 IF entry=13 THEN GOTO 1260
790 IF entry=14 THEN GOTO 1300
800 'check entries 1 to 6
810 FOR x=1 TO 5:IF dice(x)=entry THEN score=score+entry
820 NEXT:IF score>0 THEN GOSUB 1370
830 GOTO 1320
840 ' check for 3 of a kind
850 y=1:check=0
860 dummy=dice(y):FOR x=y TO 5:IF dice(x)=dummy THEN check=check+1
870 NEXT:IF check>=3 THEN GOTO 1300
880 IF y=3 THEN score=0:GOTO 1320
890 y=y+1:check=0:GOTO 860
900 ' check for 4 of a kind
910 y=1:check=0
920 dummy=dice(y):FOR x=y TO 5:IF dice(x)=dummy THEN check=check+1
930 NEXT:IF check>=4 THEN GOTO 1300
940 IF y=2 THEN score=0:GOTO 1320
950 y=y+1:check=0:GOTO 920
960 'check for full house
970 y=1:check1=0
980 dummy=dice(y):FOR x=y TO 5:IF dice(x)=dummy THEN check1=check1+1
990 NEXT:IF check1=5 THEN score=25:GOSUB 1370:GOTO 1320
1000 IF check1=3 THEN GOTO 1030
1010 IF y=3 THEN score=0:GOTO 1320
1020 y=y+1:check1=0:GOTO 980
1030 y=1:check2=0
1040 dummy=dice(y):FOR x=1 TO 5:IF dice(x)=dummy THEN check2=check2+1
1050 NEXT:IF check2=2 AND check1=3 THEN score=25:GOTO 1320
1060 IF check2=2 AND check1=3 THEN score=25:GOTO 1320
1070 IF y=4 THEN score=0:GOTO 1320
1080 y=y+1:check2=0:GOTO 1040
1090 'check for low or high straight
1100 FOR y=2 TO 5:t=dice(y):FOR x=y-1 TO 1 STEP -1:IF dice(x)<=t THEN 1120
1110 dice(x+1)=dice(x):NEXT x
1120 dice(x+1)=t:NEXT y
1130 check=0:check1=0:check2=0:FOR x=2 TO 5:IF dice(x)=dice(x-1)+1 THEN check=ch
eck+1
1140 IF dice(x)=dice(1) THEN check1=check1+1
1150 NEXT:FOR x=1 TO 5:IF dice(x)=3 OR dice(x)=4 THEN check2=check2+1
1160 NEXT:IF entry=12 THEN GOTO 1220
1170 'CHECK FOR LOW STRAIGHT
1180 IF check>=3 AND check2>=2 THEN score=35 ELSE score=0
1190 IF check1=4 THEN score=35:GOSUB 1370
1200 GOTO 1320
1210 'CHECK FOR HIGH STRAIGHT
1220 IF check=4 THEN score=45 ELSE score=0
1230 IF check1=4 THEN score=45:GOSUB 1370
1240 GOTO 1320
1250 'check for YETCHA
1260 FOR x=1 TO 5:score=score+dice(x):NEXT
1270 IF score/5=(dice(1) AND dice(2) AND dice(3) AND dice(4) AND dice(5)) THEN s
core=60 ELSE score=0
1280 GOTO 1320
1290 'check for Free
1300 FOR x=1 TO 5:score=score+dice(x):NEXT
1310 GOSUB 1370
1320 LOCATE #1,21,entry+4:PEN #1,1:PRINT #1,USING"###";score
1330 player(go,entry,2)=score
1340 IF score>0 THEN SOUND 1,50,40,14,1:GOTO 1360
1350 SOUND 1,500,70,14,3
1360 RETURN
1370 REM ** CHECK FOR BONUS (100) **
1380 check=0:y=dice(1):FOR x=1 TO 5:IF dice(x)=y THEN check=check+1:NEXT:PEN #1,
1:IF check=5 AND player(go,13,2)>59 THEN player(go,13,2)=player(go,13,2)+100
1390 IF player(go,13,2)>-1 THEN LOCATE#1,21,17:PRINT#1,USING"###";player(go,13,2
)
1400 RETURN
1410 REM ** CHECK FOR BONUS (30) **
1420 player(go,7,2)=0:FOR x=1 TO 6:IF player(go,x,2)<1 THEN GOTO 1440
```

►

```
1430 player(go,7,2)=player(go,7,2)+player(go,x,2)
1440 NEXT:IF player(go,7,2)>=63 THEN player(go,7,2)=30 ELSE player(go,7,2)=-1
1450 IF player(go,7,2)=-1 THEN GOTO 1470
1460 PEN #1,1:LOCATE #1,21,11:PRINT#1,USING"###";player(go,7,2)
1470 RETURN
1480 REM ** GRAND TOTAL **
1490 dummy=0:FOR x=1 TO 14:IF player(go,x,2)<1 THEN GOTO 1510
1500 dummy=dummy+player(go,x,2)
1510 NEXT:player(go,15,2)=dummy:PEN #1,1:LOCATE #1,21,19:PRINT #1,USING"###";pla
yer(go,15,2):IF turn=men*13 THEN FOR x=1 TO 1000:NEXT:GOTO 1530
1520 CLS #4:PEN #4,2:LOCATE #4,2,1:PRINT #4,"Press [N] for next player":WHILE IN
KEY(46)=-1:WEND
1530 RETURN
1540 REM ** NEXT PLAYER **
1550 LOCATE #2,10,13:PRINT #2,"      ":LOCATE #2,10,13:PEN #2,0:PRINT #2,player$(
go):FOR x=1 TO 5:LOCATE #2,dx(x),dy(x):PRINT #2," ":LOCATE #3,dx(x),dy(x):PRINT
#3," ":NEXT
1560 PEN #1,1:FOR x=15 TO 1 STEP -1:IF player(go,x,2)>-1 THEN LOCATE #1,21,x+4:P
RINT #1,USING"###";player(go,x,2) ELSE LOCATE #1,21,x+4:PRINT #1,""
1570 SOUND 1,x*5,5:NEXT:RETURN
1580 REM ** GETTING AQUAINTED **
1590 GOSUB 1830
1600 LOCATE 5,7:PRINT"First I Need To Know How Many Are":LOCATE 12,8:PRINT "Play
ing (1 to 6) ?"
1610 a$=INKEY$:IF a$="" THEN 1610
1620 men=INSTR("123456",a$):IF men<1 OR men>6 THEN GOTO 1610
1630 DIM player$(men),player(men,15,3):LOCATE 1,7:PRINT SPACE$(255):LOCATE 7,7:P
RINT"Now I Need To Know Your Names":y=10:FOR x=1 TO men
1640 LOCATE 10,y:PEN 3:PRINT "Player";x;":- ";:INPUT player$(x):IF player$(x)=""
 THEN 1640
1650 player$(x)=UPPER$(LEFT$(player$(x),5)):y=y+2:PRINT CHR$(7):NEXT:y=y+2:LOCAT
E 10,y:PRINT"INSTUCTIONS(Y/N)":WHILE INKEY$<>"":WEND
1660 a$=UPPER$(INKEY$):IF a$="Y" THEN 1670 ELSE IF a$="N" THEN RETURN ELSE 1660
1670 GOSUB 1830
1680 PEN 3:PRINT:PRINT"  When Playing Each Players Name Will     Appear  At The
Bottom Of The  Throw      Screen.":PEN 2:PRINT:PRINT"  Prompts, To Be Followed  C
arefully,     Will Appear  Below The  Score Card."
1690 PEN 3:PRINT:PRINT"  When Entering  A Score To A Certain     Section, Use  O
nly The  Numbers 1-6     And 8-14 (Others Will Be Rejected)."
1700 PEN 2:PRINT:PRINT"  If A Score Cannot  Be  Validly Used     (Or Someone Tri
es Cheating)  Then A     Zero Will Be Placed For That Entry."
1710 PEN 3:PRINT:PRINT"  Dice  Need  Re-saving  Each Time So     That Any That A
re No  Longer Needed     Can Be Thrown Away.":LOCATE 7,25:PEN 0:PRINT"Press [SPA
CE] To Continue.":WHILE INKEY$<>"":WEND:WHILE INKEY$<>" ":WEND:GOSUB 1
830
1720 PEN 3:PRINT:PRINT"SCORING":PEN 2:PRINT:PRINT"  To  Score In The Top  Sectio
n,  The     Total  Of  The  Dice  Showing  That     Particular Number Is Added T
ogether
1730 PEN 3:PRINT:PRINT"  e.g ";CHR$(201);" ";CHR$(201);" ";CHR$(205);" ";CHR$(20
6);" ";CHR$(206):PRINT:PEN 2:PRINT"  Will Total 2 In ONES OR 5 In  FIVES    Or
 12 In SIXES Or Zero In  Others."
1740 PEN 3:PRINT:PRINT"  If The  Total Of The  Upper Section     Is 63  Or  More
 Then A Bonus Of  30     Points Is Given.":LOCATE 7,25:PEN 0:PRINT"Press [SPACE]
 To Continue.":WHILE INKEY$<>"":WEND:WHILE INKEY$<>" ":WEND:GOSUB 1830
1750 PRINT:PEN 2:PRINT"  3 OF A KIND  Totals  All  Dice  But     Only  If  3  Or
 More  Dice Have The     Same Face Value.":PRINT:PEN 3:PRINT"  4 OF A KIND  Tota
ls  All  Dice  But     Only  If  4  Or More  Dice Have The     Same Fa
ce Value."
1760 PEN 2:PRINT:PRINT"  FULL HOUSE Scores 25 Points  If The     Dice  Have 3 Of
 One  Number And Two     Of Another Number e.g ";:PEN 3:PRINT CHR$(205)" "CHR$(2
05)" "CHR$(205)" "CHR$(203)" "CHR$(203)
1770 PEN 3:PRINT:PRINT"  LOW STRAIGHT  Scores 35 Points Only     If 4 Or More Di
ce Have  Consecutive     Face Values e.g ";:PEN 2:PRINT CHR$(201)" "CHR$(202)" "
CHR$(203)" "CHR$(204)" "CHR$(206)
1780 LOCATE 7,25:PEN 0:PRINT"Press [SPACE] To Continue.":WHILE INKEY$<>"":WEND:W
HILE INKEY$<>" ":WEND:GOSUB 1830
1790 PEN 2:PRINT:PRINT"  HIGH STRAIGHT Scores 45 Points Only     If All Dice Hav
e  Consecutive  Face     Values e.g ";:PEN 3:PRINT CHR$(201)" "CHR$(202)" "CHR$(
203)" "CHR$(204)" "CHR$(205)
1800 PRINT:PRINT"  FREE  Scores The Values Of All Dice     Added Together."
1810 PEN 2:PRINT:PRINT"  YETCHA Scores 60 Points Only If The     Face Value Of A
ll Five Dice Are The     Same e.g ";:PEN 3:PRINT CHR$(205)" "CHR$(205)" "CHR$(20
5)" "CHR$(205)" "CHR$(205)
1820 PRINT:PRINT"  Every Extra YETCHA After YETCHA Has     Been Scored As 60 Ear
ns A Bonus  Of     100 Points.":LOCATE 7,25:PEN 0:PRINT"Press [SPACE] To Start G
ame.":WHILE INKEY$<>"":WEND:WHILE INKEY$<>" ":WEND:RETURN
1830 PAPER 1:PEN 2:BORDER 0:CLS:LOCATE 14,2:PRINT CHR$(135);STRING$(13,131);CHR$
(139):LOCATE 14,3:PRINT CHR$(133);:PEN 3:PRINT " Y E T C H A ";:PEN 2:PRINT CHR$
(138):LOCATE 14,4:PRINT CHR$(141);STRING$(13,140);CHR$(142):RETURN
1840 REM *** FINISH DISPLAY ***
1850 FOR x=2 TO men:a=player(x,15,2):a$=player$(x):FOR y=x-1 TO 1 STEP -1:IF pla
yer(y,15,2)<=a THEN 1870
1860 player(y+1,15,2)=player(y,15,2):player$(y+1)=player$(y):NEXT
1870 player(y+1,15,2)=a:player$(y+1)=a$:NEXT
1880 SPEED INK 40,10:MODE 0:INK 0,0:INK 1,15:INK 2,26,0:INK 3,6:BORDER 0:PAPER 0
:PEN 1:PEN 3:LOCATE 5,2:PRINT"FINAL SCORES":PRINT:PRINT:PRINT:PRINT
1890 FOR x=men TO 1 STEP -1:IF x=men THEN PEN 2 ELSE PEN 1
1900 PRINT TAB(6);player$(x);:PRINT TAB(12);player(x,15,2):PRINT:NEXT:LOCATE 5,2
3:PEN 3:PRINT"Press [S] To":LOCATE 3,24:PRINT"Start A New Game":WHILE INKEY(60)=
-1:WEND:CLEAR:GOTO 20
```

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A doctor writes

David Dorn deals with problematic modems, a Mini Office moan and a prospective Star LC-10 buyer, among other selections from the postbag.



Here we are, back again, with a very mixed bag of your problems. So, on with the post! Or I should say telephone in the case of my first enquiry. In the early part of January a vexed Ian McCabe got in touch with me, vexed because he had gone to the expense of buying two modems, and a KDS serial interface (which has its software in ROM), and a lead, but had been unable to get the thing to go on-line.

The problem turned out to be one of cabling. Ian had tried every which way to get the software to autodial his two Hayes compatible modems, it having been said before that such things were available at reasonable prices. He has also had problems just getting the thing to talk to the modem sensibly.

In fact, there are two problems. The first is to get the interface (and thus the CPC) talking to the modem, and the second is to get the software to dial the numbers.

In the end, as I hinted earlier, it is all in the cable. The normal RS232C cable is constructed on a one-to-one basis, i.e. pin 1 on the modem end goes to pin 1 on the interface end, 2 to 2, 3 to 3, and so on. In the case of the majority of CPC serial interfaces, though, and with some modems, this is not the end of the story.

In this case the cable had to be connected according to fig. 1 The important bits are the links from pin 5 to 6 and 8 on the interface side, and 4 to 20 on the modem side. If the RS232C lead has more pins wired than this, it should not make a difference (you will generally find them being wired straight through from 1 to 8 and also pins 20 at both ends – known as a 1 to 8 and 20 RS232 cable), as long as the links at either end are made.

That configuration certainly works for the Pace Linnet, and the Stradcom Pocket modem, and ought to work for more or less any Hayes compatible modem.

Now to the dialling problem. The fact is that there is no way to get Comms Pack 5 software to autodial a Hayes modem (I know because I rang KDS and asked them to send me one to work on – there is no way!). However, you can get the modem to dial for you.

All you need to do is simply follow the menu tree through, setting the data, parity and stop-bit values and the baud rate as you go (noting that the software will only allow you a maximum bps (Bits Per Second) rate of 1200bps), and then select '(C)ommunicate' from the services menu.

This puts you straight into the terminal emulation. At first, you will get the message 'Waiting for Answer' which ought to clear fairly quickly, and then you can talk to the modem – in its own language, the 'AT' command set. In this case, issue the commands 'ATZ' <CR> (excluding the inverted commas) which resets the modem to its defaults, and also tells it at what speed you are talking to it, and then ATD<BBS Number>, where <BBS Number> is the phone number of the BBS you are trying to reach – try 01 828 1577!

The modem will come back with an okay after the first command and will dial the number you have given it after the second one. It will connect with the remote modem, and start talking! Problem solved. And, indeed, it was for Ian McCabe, as I saw that he had been on the Focal Point system that

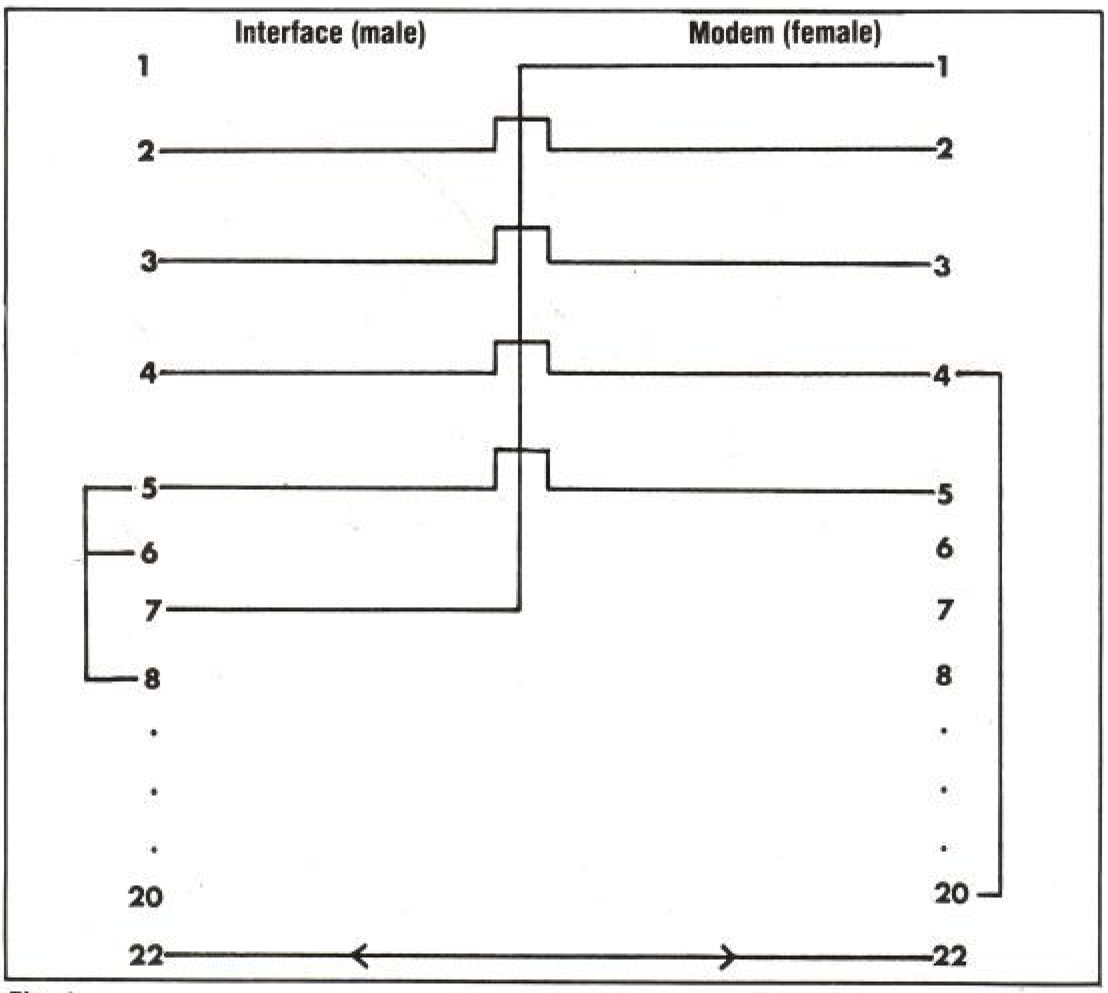


Fig. 1

night, and I should imagine he will be there a lot more in the future!

From D. John Elson, in Ludlow, Salops, comes this missive:

'. . . it is the failure of a program supplier to provide adequate instructions that prompts me to write to you now.

'I have a 6128, green monitor, DMP 2000, and a second drive – operated by ROMDOS . . . the drive makes a noise like a clapped-out jalopy, but I shall manage to live with that as long as it does not let me down.

'I have also compiled a Masterfile III database of about 2500 records, spread over nine files of varying lengths – 20-60k – and the second drive helps enormously in manipulating these. However, I decided that it would be useful if I separated out a number of records from each file into a larger single unit, which I could not do with MF III because of the file size. So I opted for *AtLast* which, apart from the larger file capability, had the great advantage of maintaining the records in pre-determined sequences. (MF III sort is so slow).

'I have managed to master AtLast, after a fashion, despite the inadequacies of the manual. Why David Foster chose to write this in rather verbose prose instead of using the normal step-by-step approach of most technical and teaching instruction books, I cannot imagine. Perhaps he has literary aspirations.' (Actually, he is the Editor of the ST Microbase on Micronet, and my co-editor on Soley Amiga!).

'I also managed to teach myself some of the more advanced tricks of MF III – ERAD and CHREF, for example – and I have extracted and merged records so as to produce a file which, as far as I can see, complies with the requirements of AtLast, each field being on a separate line in matching order to the fields in the AtLast file, and containing only valid data. I have even inserted default dashes in the empty fields and eliminated embedded sort codes. I have prepared an export file using the *Tasword* sequence shown in the MF III manual, and successfully transferred this to Tasword, where I have further edited it and saved it as a text file.

'So far as I can tell, the file I set up in AtLast is okay, or at least it seems to operate without problems when I input data from the keyboard. However, when I try to import my files from MF III and Tasword, I get the message "Run Time Error F0, PC7285 Program aborted", and that, as they say, is that! What am I doing wrong?'

The first thing I ought to point out is that the error message you are getting is produced by the compiler used to write the AtLast program files. This seems to be Turbo Pascal here, leading me to believe that you have an early version of the program, which is now known to have a bug associated with large databases, and by the sound of it, yours is. Basically, what is happening is that AtLast is getting itself into a tizzy that the code cannot handle, and the runtime modules are generating the error message.

Now, the causal factors may be a number of things. First, are you absolutely sure that you have created the AtLast database template such that there is enough room in each field on the record for the largest of that field in the Masterfile database to fit? If not, that could cause this spectacular crash.

Next, I am a little puzzled as to why you are importing the file from Masterfile into Tasword for further editing. I believe that MF III has export options that will strip the sort codes from the file, and format it in exactly the way required by AtLast. That being the case, introducing an intermediate step in the process simply increases the chance of errors.

Finally, the import file *must* be field-for-field and record-for-record with the native file, or all kinds of funnies can happen. In any of these cases I would expect you to have problems, but certainly not of the kind you have described. Almost certainly, the root of the trouble is the old version of AtLast. What you need to do is contact its author, Mike York, on 056 681511, and outline to him the problems you have. I am pretty sure he will upgrade you to the latest version.

As for an inexpensive book on CPM+ (which John asks about in a PS), there are a number from which to choose, all containing the information you need in a 'technical manual' format. Check out your local John Menzies, who seem to have the best selection in my area, and see which one suits your needs best (leaving me, as ever, to sit on the fence!).

Adult trivia

'Dear Doctor Dorn,' writes Donald Thomas from Kings Heath, in Birmingham, 'can you help a keen but very amateur 6128 owner with a couple of problems?' I will do my best, Donald.

'I have a 6128 with colour monitor, a DMP3160 printer, and MO II. First problem: I type in a program, say a ten-liner, then want to transfer the program onto paper through the printer. How? Putting #8 as advised in the manual does not work and, apart from sticking everything through the MOII word processor, I cannot print anything.

'Second problem: I put a letter, program – anything – into the word processor and give it a filename. When I want to change or erase that filename, if it is more than eight letters long, I cannot. I get 'line too long', and I am stuck with a disc full of files I do not want. Advice please!

'I know to an expert like yourself these problems might sound trivial, but they are driving me up the wall. If you can help, or even suggest a book that explains MOII in words that I can understand, I would be extremely grateful.'

First things first. Your problem with listing to the printer seems to me to be purely a matter of terminology. It is all to do with streams, which is a fancy term for paths from one place to another inside the computer. Stream 0 is a fixed stream, which ends up at the screen. It is the path taken by all output you see on the screen. So, when you type 'LIST' at the command prompt, and press <RETURN>, the Basic interpreter automatically assumes that you want to list your program on the monitor, so it tags a '#0' onto the end of the command for you. Now, the parallel port (printer port) is always connected to stream 8. So, in order to list the program on the printer, you must tell the computer where you want it to go, or else it will tag that '#0' onto the command. Thus, you need to type 'LIST #8<RETURN>' (without the quotation marks, and <RETURN> means press the key marked RETURN, or ENTER).

If your printer is connected and switched on, with paper loaded, and the on-line light lit, you will see the listing being printed before your very eyes.

And so to the second problem, MOII and its refusal to deal with long filenames. We have dealt with this in some depth over the last few months,

so I will refer you to previous issues, as space is a little tight this month. However, the easy alternative (to my mind) is to delete any unwanted files from Basic with the :ERA,'filename' command, before you enter MOII.

As for books that explain MOII in simple terms, and make it easy to use, I really do not know of any that I can recommend – maybe other readers might like to send in their suggestions on this one. To be honest, I hate recommending books to people, because I inevitably end up specifying one that is either far too simple for their needs, or else way above them. I do not mind passing on other people's views, though!

Meanwhile, and this does not refer just to you, Donald, what many people may consider to be trivial can just as easily be a major stumbling block for many others – it is all a matter of how you view things. In many respects, whilst I consider RS232C and comms problems to be 'trivial', because I am working in that area every day of my life, most people have major challenges getting to grips with it. Like I said, I would never put somebody down just because they are at a different level of understanding, and I would hope no one else would either!

Star turn

From Woldingham in Surrey, Russell Barnett sends a very short letter. He says 'I am thinking of purchasing a Star LC-10 colour printer. Along with my 464 came a tape called *Easi Amsword*, by Amsoft. Will I need to buy any other software to operate the printer?'

The short answer is no. But it depends on what you want to do with it. For word processing, Easi-Amsword is as good as any other to begin with (although you may care to cast your eye over the WP round-up elsewhere in this issue for my personal prejudices), and ought to drive the printer well enough.

If, however, you are thinking of more ambitious projects (and I'm thinking of pictorial printing in glorious livid yucknicolour), then, yes, you will need more software. I'm at present battling with Basic to produce a dump that will handle any colour the CPC can throw at the LC-10 (one of which has been provided by Star expressly for the purpose – thank you, Star!), although we've already had an eight colour dump on these pages. Precisely what software you'll need depends on your application, so there's not a lot more I can say.

Funny how, quite often, the short letters get much longer replies, isn't it?

And it seems that we've run out of room yet again! As usual, there'll be more next month, but I do want you to keep your letters coming in. Send 'em either to ACU at the usual address, or you can leave a message in my Focal Point mailbox (Gordon explains how to do that in his column, so he tells me) if you've got a modem, or else on Micronet, MBX 914177811, or else Telecom Gold 74:MIK2050. I'm afraid I don't have time to answer your letters any other way than through this column, as much as I'd like to. Neither can I read smoke signals! See you next month!

NEXT MONTH

LEARNING WITH THE CPC

We compare a number of leading educational software packages for the CPC to establish just how good a learning tool it really is.

OVER THE EDGE

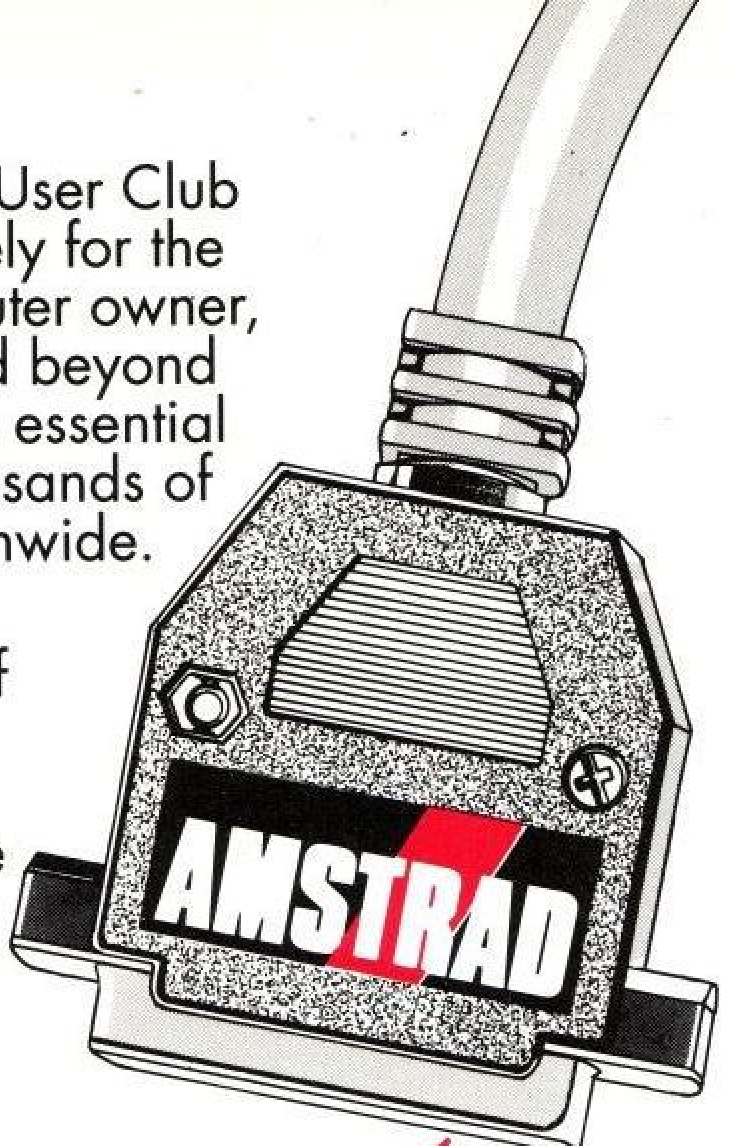
The Edge is the name of the guitarist with U2. It is also the name of a leading games software house, although the two aren't connected. Chris Knight and Nick Hutton went to interview the latter, which is about to launch the long awaited **Punisher** game.

GRIDIRON ACTION

I remember, many years ago, playing a coin-op called **10 Yard Fight,** based on American Football. Domark is about to launch **Cyberball,** which will be a very different kettle of fish, but may stir up a few fond memories since it shares the same subject matter. Next month's Gameplan features an exclusive preview of Cyberball and reviews of **Wild Streets, Gazza's Super Soccer** and **Myth – History in the Making.**

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ACU/SY/4

A difficult process

David Dorn takes time from his task as ACU agony uncle to give his views on some leading CPC word processing packages.

It goes without saying that one of the first applications that most CPC users decide to get their hands on is a word processor of some description. The problem for the newish user is which one to buy – there are a number on the market, each with their strengths and weaknesses, and at all kinds of different price points.

In this round-up, ACU takes a look at the three most popular of the bunch, for both Amsdos and CP/M. These represent the three families of word-processors beyond which no CPC user need look for a good workmanlike program.

There are no doubt many CPC users who came from the Sinclair Spectrum. That machine was not the best served for word processors, but did have one that was almost universally accepted as the one to use. That was *Tasword* in its many guises. The inception of the CPC 464 prompted Tasman Software to write a version for the 464, called, appropriately enough, *Tasword 464*! This was followed by *Tasword 464D* as the add-on disc drive for the machine became available, and was swiftly followed by *Tasword 6128*, when that machine first saw the light of day.

Each version (all of which are still available) used its host machine to the full, scraping bits of memory from all over the memory map to be used for the task in hand. Although each is different, the three versions have much in common, and it's really only in the sizes of file, and file handling where the major differences apply.

Tasword exemplifies the halfway point between fully menu driven and fully command driven word processing. All of the file handling and printing functions are handled by menus, as are the many configuration options (and Tasword still remains one of the most configurable word processors available on any machine today).

The only embedded commands allowable in the text are printer control codes, each of which is configurable to suit the user.

And so to using the programs. I'm not ashamed to admit that I bought Tasword the day after I bought my first CPC, and have always found it easy to use. It offers three text entry types – overwrite, insert, and insert align, defaulting to overwrite. For most people this is generally no problem, and since switching between insert and overwrite whilst using the program isn't difficult, the best of both worlds is available.

The only problem that I've ever had with the insert mode in Tasword is that it doesn't operate in the same way as the insert mode in every other WP I've come across. However, it is very easy to get used to.

Since this is a round-up and not an in-depth review, let us content ourselves with saying this: Tasword is a deservedly popular WP that offers even the least sophisticated user a powerful text processing environment, coupled with some very nice mail-merging facilities. Its add-on spell checker is painfully slow, but for the non-professional user who can spell well it comes in as the cheapest of the top three programs. I'm happy to recommend it on that basis.

The Peterborough firm of Arnor achieved fame in Amstrad circles as being the first with a WP on a ROM. *Protext* on ROM is rightly a very popular program indeed. (So popular, in fact that it is now available on all computers from the Arnold up – the ST, Amiga, and PC, as well as the PCW).

Protext, in its many guises, typifies the command driven WP, allowing a plethora of commands to be embedded in the text of a document, and being driven from a command line as distinct from a menu. These embedded commands allow for some very powerful features, and form a programming language in their own right in the CP/M variant of the program.

Did I say CP/M? Indeed I did. Protext is available on cassette, disc, in ROM, (under Amsdos) and under CP/M (on disc as well – obviously). To sit alongside it, there are a spell checker (*ProSpell*) and a mail-merge utility (*Promerge* and *ProMerge Plus*). The CP/M version has both the spell-check and the mail-merge facilities built in. Phew!

The default text entry mode in Protext is Insert – the preferred mode for professional users – and because it is a command driven system, you will generally find that a document of a given length will be finished fractionally quicker than with Tasword. Formatting onscreen is also faster, and customisation facilities in printer drivers are certainly more powerful, since individual drivers can be written and loaded on command for different printers. Tasword requires you to either save multiple copies of the Basic part of the program, or to change printer parameters whilst


REJECT
Punctuation
BRUNWORD
PROTEXT
TASWORD

'live'. Protext's add-on spell checker is one of the fastest non-memory resident checkers around, the ROM version being particularly fast, and makes the Tasman offering look very slow indeed. Likewise, the mail merge facilities available to the non-CP/M versions in Promerge and Promerge Plus are very powerful. The CP/M merge facilities are second only to the latest releases on the PC and 16 bit machines.

Of all of the versions of Protext I have two favourites, which have particular uses. The ROM version, teamed up with ProSpell and ProMerge Plus on ROM is ideal for everyday use with documents of limited size, and has become the CPC journalist's standard article writing tool. The CP/M version is more powerful, and has the advantage of allowing documents to be limited only to the size of the disc you're working with – which could be 800k on an add-on disc.

The drawbacks? A full spell-checking, mailmerging system on ROM, including a ROM box, will work out at around £140 at recommended retail prices, and that isn't cheap. That said, the CP/M version has all of the functionality, if not the immediate loading, of that system, and more beside, and costs a much more reasonable £59.95.

How can I sum up a WP that I use every working day of my life, (although I'll freely admit to using it on a PC, rather than the Arnold) and which resides on every computer that I have? Definitely in the top three!

Brunning Software's word processor falls directly between Tasword and Protext in its manner of use – it is neither wholly menu driven, nor wholly command line driven, but is, in fact, a very usable hybrid of the two. Peter Brunning, its author, describes it as a word processor for the entire spectrum of 6128 users.

He's probably spot on for 75 per cent of CPC users in his estimations, and so Brunword has to be examined in the light of where it's placed in the market. *Brunword 6128*, which is the version I've been looking at, boasts the fastest disc-based spell-checker of the top three programs and is the only one of the three to have a 128 character per line editing screen.

The amazing thing about that is that the tiny characters it uses are very readable on a green screen, if a little 'greeked' on a colour screen – depending on how bright your monitor is. Either way, the facility is unique in CPC wordprocessors, and so Brunning must be commended on it. For those nasty moments when you can't read the 128 column font as it's being typed in, there is a window at the bottom of the screen which echoes your every character of purple prose, but in a larger font (it seems enormous compared to the 128 column font). That's not only handy, but also typifies the thoughtfulness that seems to have gone into the design of this program.

Brunword also has the fastest screen handling I've come across, reformatting in real time as temporary margins are moved on a pre-paragraph basis, whether in 128, 80 or 40 column mode, all of which are handled very well.

Here again, Brunword scores over other WPs, since if the margins are set such that the right hand one falls at less than 40 characters, the display switches to mode 1 standard, between 41 and 80 it defaults to mode 2 (probably the easiest to work with) and above that switches the mini-128 character set in. All of this is automatic, and very clever, and once more, indicative of the thought that has gone into this product.

Printer control is different in Brunword, as opposed to the other two contenders. Each text file that you produce has its own printer parameters saved with it – much like some top-flight professional WPs on the IBM PC and Apple Mac, which means that you have no need to remember which printer driver you need to use with a particular document. They're not too difficult to change, either, which is a plus.

Since Phil Craven gave Brunword an in depth review in the February issue of this mag, I'm not going to go into any great detail in this round-up. What I will say is this, though, with its spell checker in-built, as well as Datafile, the flat-card database section, and considering the features and facilities that Brunword offers, it would be very difficult to overlook it at a price of only £30.

In fact, complete with spell checker, it is the cheapest spell checking/WP combination of the big three, and probably offers the greatest on-screen flexibility. Like Phil, I have to say that I'm very impressed with it.

I haven't heard of many Brunword users who have switched to other WPs, which has to be a recommendation in itself.

CPC users have three decent word processing systems to choose from, each of which has its own proponents. If you're after all-out speed and flexibility, then there's nothing to touch Brunword. It's had three years more development than Protext, and it shows – it's altogether faster, and although it lacks the two file editing facility that Protext has, it has the edge in most other departments. Protext has a large following, and is also very flexible. Its add-on mailmerge facilities (disc and ROM version, included in the CP/M version) set it apart from the other two, although it can be challenged by the InfoScript flavour of Brunword, a tussle in which it comes out on top.

For extreme file sizes, then, CP/M Protext has to be the main contender, although each of the others is capable of producing large documents by chain printing a series of smaller parts. If that's a bind for you, then CP/M Protext is the one to look at.

Tasword, for all its background, and user-friendliness loses out to both of the others in the speed and flexibility stakes. Add to that a spell checker that is atrociously slow, and you might think it wasn't a good buy. Not so – it's still streets ahead of any of the others that have come and gone since 1984.

DETAILS

Tasword 464 cass £24.95, Tasword 6128 disc £29.95
Contact: Tasman Software, tel: 0532 438301.

Protext cass £19.95, disc £26.95, ROM £34.95, CP/M £59.95.
Prospell disc £24.95, ROM £34.95.
Promerge disc £24.95. Promerge Plus ROM £34.95.
Contact: Arnor, tel: 0733 68909.

Brunword 6128 £30, Brunword 464 £30, Info-Script £50 (incorporates Brunword, BrunSpell), BrunWord Elite £90 (incorporates BrunWord, BrunSpell, and InfoScript).
Contact: Brunning Software, tel: 0245 252854.

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Focal hero

Gallant Gordon Bates guides you through the joys of the Focal Point Bulletin Board System, your passport to an ever growing network of computer communicators.



As you are probably aware, the Focal Point Bulletin Board has been operational now since January, so I thought it might be a good idea to lead you through some of the essentials of using the system. There's a dual advantage in that the same rules will apply to any BBS that uses SearchLight software!

And so to your first Focal Point log-in! Set your software to 8N1, and dial 01-828-1577 at any speed up to V22bis. Once your modem locks onto the Focal Point modem, you'll get a message on your screen prompting you for:

(C)olour (M)onochrome or (N)one.

You must specify (N)one if you're using your Arnold, even if it's a colour machine! You'll be presented with the Focal Point Welcome screen, and then asked for your name. Typing NEW will present the New User menu, which looks like this:

Focal Point New User Menu
[R] – Register as a New User
[G] – Enter the system as a Guest
[C] – Call the Sysop to Chat
Command –>

To register, press the R key to access the Register option. The program will: display the new user message; prompt you for your name, location, phone number, system type, password, and ANSI mode; enter your info into the BBS database; and log you in to the BBS.

If you try to enter a name that already exists in the user file, a warning message is printed, and you'll have to enter another name – just use your initial, for instance, but please, no nicknames!

The G option allows you to log in using the Guest account. If Guest is used, you will have no opportunity to register and have full access privileges.

Finally, the C option will issue a page to the sysop (if the "sysop available" mode is enabled – unlikely after 6pm).

Focal Point's main menu looks a little like Fig. 1

The Mail command is used to send private messages to other users, and to read the private messages that other users send to you. You can only send mail to someone whose name is registered in the BBS user file (ie. you can't send mail to "All", etc). You can only read mail that's been sent to you.

To use the mail facility, execute the Mail command. This will present you with a short menu of mail subcommands. The commands are:

[R]ead – this option lets you read your mail, if you have any. Each message in your private mailbox is displayed in sequence.

After reading a message, a prompt appears with options to reply to the message, re-read it, forward it (send a copy of the message to another user or a public message sub-board), and delete it. Please remember that all messages in your mailbox are private and addressed to you, therefore, mail should be deleted as soon as you are

```
----------------[ Focal Point BBS Command Summary ]----------------

Ansi ...... ANSI Graphics Toggle        New ....... New Message Scan
Bulletin .. System Bulletins            Options ... User Options/Stats
Chat ...... Page Sysop                  Post ...... Post Message
Doors ..... External Programs           Quotes .... Logoff Quotations
Edit ...... Edit Message                Read ...... Read Message(s)
Files ..... File Transfer System        Scan ...... Scan Message Titles
Goodbye ... Log Off System              Time ...... Time Information
Info ...... System Information          User ...... User Lists & Info
Jump ...... Jump To Subboard            Version ... System Version No.
Kill ...... Delete Message(s)           1-Subop ... Subop Options Mode
List ...... Subboard List               2-Sysop ... Sysop Command Mode
Mail ...... Electronic Mail

-------------------[ Press <?> For Online Help ]-------------------
>-------!-------!-------!-------!-------!-------!-------!-------!----R
```

Fig. 1

finished with it.

[S]end – allows you to send a message to another user. You must type the name of a user who is registered, otherwise the command cannot proceed. You need not type the user's full name; you may type the first few characters, and the BBS will locate all users with matching names and prompt you for the correct one.

[N]ew – this command is exactly like [R]ead, except that only new messages are presented for reading.

[L]ist – lists the messages in your mailbox, showing the sender, date, and subject of each. You can choose a message from the list and start reading your mail from that message on.

[I]nquire – lets you examine the mail you've sent to another user. If your mail has not yet been received, you can edit it or delete it from the other user's mailbox.

The New command gives you a listing of those sub-boards that contain new messages, ie. any messages posted after the most recent message that you've read on that sub You are then prompted for the desired sub-board letter; upon entering the sub, you will receive a scan of the new messages. You can automatically begin reading the messages by responding with a Y to the "Read new messages now" query.

Post is the command you use to enter a public message on the current message sub-board. You are prompted to enter a 1 to 40 character title for the message, and then placed in the text editor to enter the text (documentation for the editor's commands is available from within the editor). Upon completion, your message is saved as the highest-numbered message on the sub-board.

The Read command lets you read messages on the current sub-board. You must enter the number of the first message you want to read. Notice that messages are always numbered sequentially; ie. if there are active 56 messages on a particular sub-board, the first message is always message 1 and the last is number 56, regardless of the fact that message deletions may have taken place in the past.

After reading a message, you have several options. You may type N (or simply press RETURN) to read the next message. You can re-read the message by pressing A.

You may reply to the message, either publically or privately; if the reply is public, it is appended to the current sub-board, otherwise the Mail facility is invoked to send the reply directly to the user who wrote the original message. The message forwarding option can be invoked by pressing F. This facility allows you to send a copy of the message you've just read to another place on the BBS: the destination can be a user's mailbox or a public message sub-board (the sysop can optionally output the message to a text file as well). The forward command prompts you for the required parameters. Use the Scan command to get a quick summary of the messages on the currently active sub-board. The scan shows the message number, the date the message was posted, the name of the sender, and the title of the message.

You may scan messages in forward or reverse direction by replying to the scan prompt with F for forward or R for reverse. Note that you can abort a scan at any time simply by pressing <spacebar> or <ctrl-c> keys.

After reading a public or private message, the BBS prompts you with a number of options, to which you can respond by entering a 1-keystroke command. Here's a summary of the options:

[A]gain – the Again option is available for both mail and public messages. It re-displays the last message read. Use this option when you want to review a long message; it is also useful for redisplaying a message in case the message is garbled by line noise.

[N]ext – the Next subcommand is used to proceed to the next message in your mailbox or on the currently active subboard. If there is no next message, the READ command exits.

You may press the RETURN key instead of N to execute the next message subcommand.

[Q]uit – select this option if you wish to quit reading messages and exit back to the main system prompt.

[R]eply – this option lets you reply to the message you've just read.

If reading electronic mail, the reply is sent to the mailbox of the person who sent the message you've just read.

If reading a public message, you have the option of sending the reply privately (as an electronic mail message) or publicly (as a posting on the current subboard). You are prompted with: Is the Reply Private (Y/N)? Type Y if you wish to send a private message, N if you wish to post a public reply.

To be continued next month.

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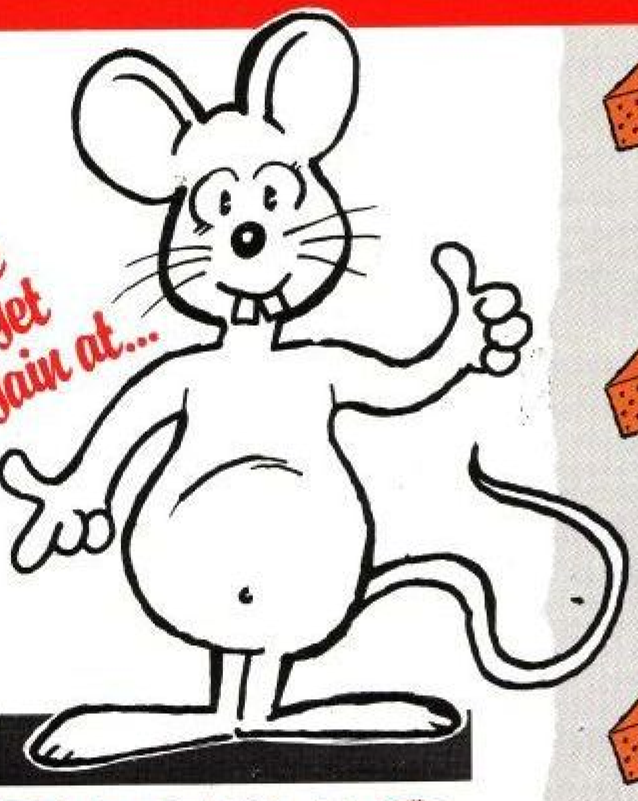
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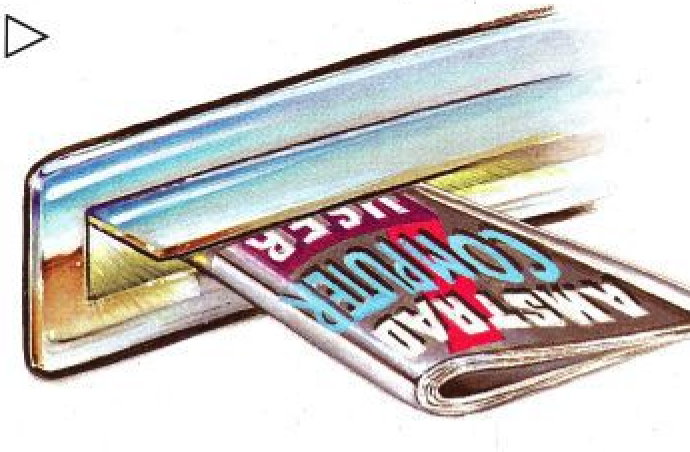
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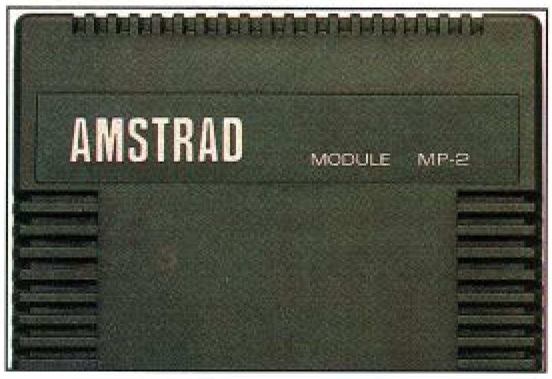
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On page 60 of Amstrad Computer User this issue, David Dorn has undertaken a comprehensive survey of the specialised WP packages currently available for the CPC. Direct Lines are delighted to offer readers an opportunity to obtain the best software for your needs at some of the keenest prices around.

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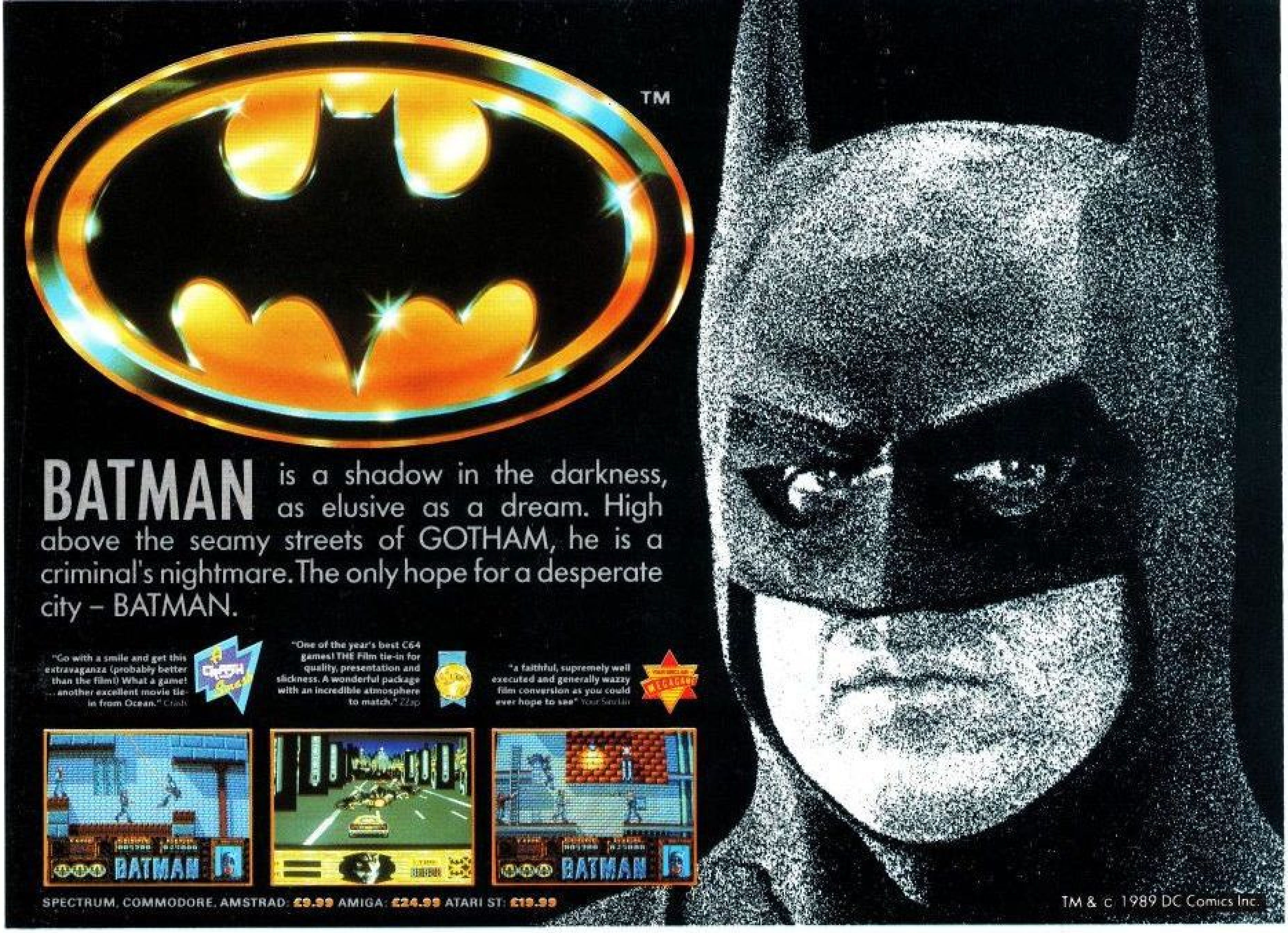
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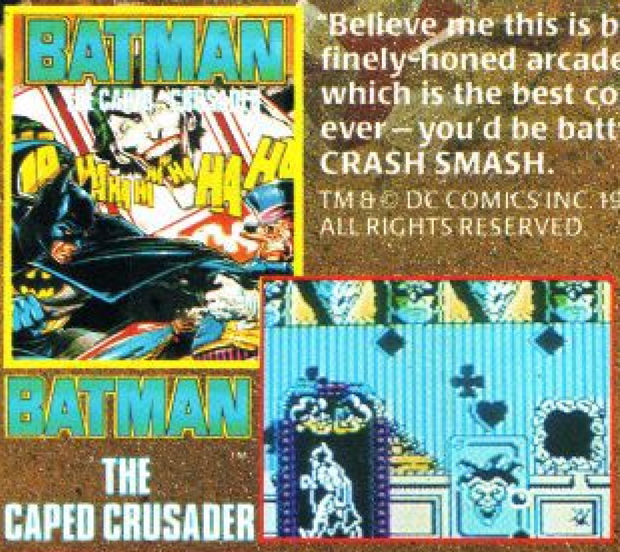
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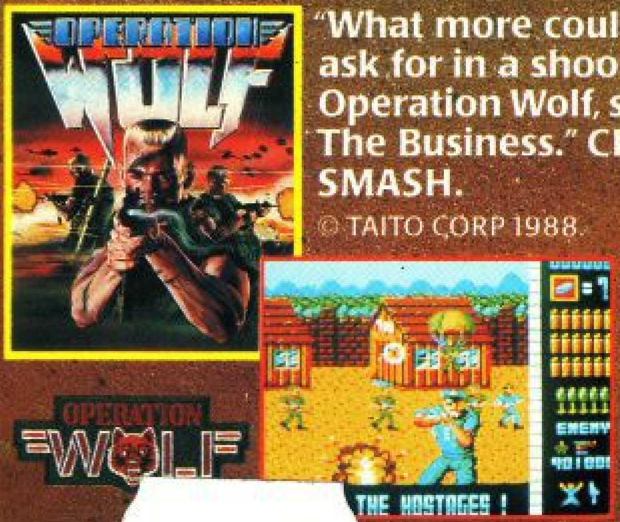
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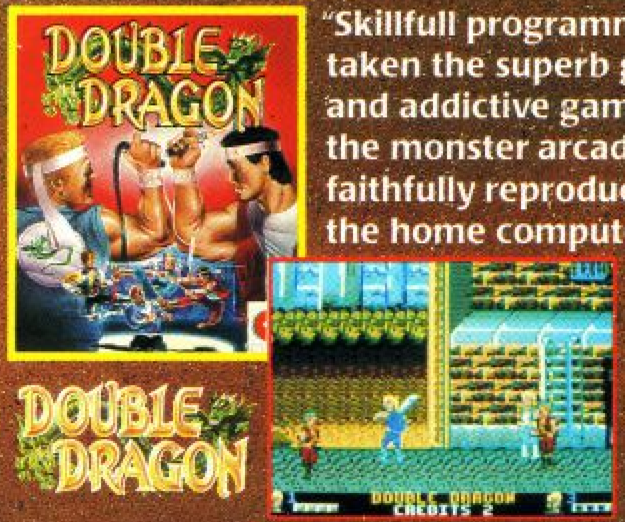
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